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ABSTRACT

Goals of the secondary health occupations workshop held May 16-18, 1974, in Madison were to develop a set of guidelines for health occupations education in Wisconsin secondary schools and to increase educators' awareness of the need for such education in Wisconsin. Speeches and panel discussions were titled as follows: "Health Care Trends--Needs for Education and Training," "The Students To Be Trained," "Health Occupations: Building the Career Ladder Concept into Health Training Programs," "Curriculum and Instructional Materials in Health Occupations," "Vocational Education and the Health Occupations," "Transfer of Learning: Health Careers Education," "ASAHP Glossary of Health Occupations Titles," "Local Programs in Health Training," and "The Changing Environment for Health Manpower." This report presents the workshop agenda, list of participants, invited papers, and questions presented to speakers and their answers. Appended are a tentative plan for a 3-year curriculum in health careers education and the results of a survey of health occupational training in Wisconsin secondary schools. (MF)

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Final Report

Project No.
19-006-153-134

Secondary Health Occupations Workshop

Merle E. Strong
Director

Roger Lambert
Associate Director

Richard Boss
Workshop Chairman

Marion E. Franken
Workshop Coordinator and Editor

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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The Center for Studies in Vocational and Technical Education
University of Wisconsin - Madison
Madison, Wisconsin

June 28, 1974

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FOREWORD

The comments which follow come from observations of a very interested educator. It was not until Dr. Strong's participation became limited by a heart attack that this writer was asked to help on the conference planning and activities. Consequently, from a minimal background on the conduct of Project S.H.O.W. combined with an attempt to direct and influence the decision making process emerges the following views.

The conference brought together twenty-four participants with broad professional backgrounds who had a common concern. This interest was that some very definite guidelines were needed to place secondary health occupations education in an acceptable stance. Students with health career interests need to be served in a variety of ways where the training is endorsed and supported by agencies and funds available for all vocational programs. It appeared that all those present at the conference were eager to work toward better understanding.

Conference participants found that there is a vital need to give students opportunities for career awareness, exploration and skill development in health occupations. The articulation of this beginning in the secondary schools of Wisconsin should (1) extend to other public or private higher education institutions where specialization and further training can be provided, or (2) prepare the student to make entry into the work world upon graduation from high school.

There was considerable give and take during conference work sessions. Nobody seemed reluctant to speak out even though many were aware of special interest group attitudes and practices. There was an overwhelming documented need to support expanded training by the Wisconsin public schools. Health professionals can no longer isolate themselves from or limit their services to the public good.

Conference proceedings were highly structured to make sure very specific questions were answered. The time schedule was too demanding to allow much filibustering; so complete agreement was reached on all topics.

The Wisconsin State Department of Public Instruction can rest assured that every attempt was used to produce workable guidelines with maximum utility. There may be places where existing laws or procedures do not allow for implementation of suggested items of concern; so it was thought that present requirements may not meet the needs of future students.

Richard D. Boss, Ph.D.
Research Associate
Center for Studies in Vocational and Technical Education

ACKNOWLEDGEMENTS

Certainly no workshop is successful because of the efforts of only one person. It is therefore fitting to recognize the efforts of the many who contributed to the original proposal and to its culmination in a workshop which met its objectives: forming goals and policy recommending statements to be submitted to the Department of Public Instruction for consideration.

Credit must be extended to Dr. Merle E. Strong, Director, and Dr. Robert A. Ristau, former Associate Director of the Center for Studies in Vocational and Technical Education at the University of Wisconsin-Madison, and to Mr. Ruel Falk of the Department of Public Instruction, who recognized the need for health occupations training at the secondary level. Credit should be given to Thomas A. De Chant, Research Specialist, who wrote the original proposal for funding through the State Board for Vocational, Technical, and Adult Education. Further credit should be given to Dr. Merle E. Strong for his efforts in writing correspondence, attending planning meetings and conferences as well as selecting able consultants, Helen Powers and Dr. Mary Elizabeth Milliken. Special appreciation is extended to Helen Powers for her knowledgeable advice to the workshop coordinator in addition to her help in the ongoing project and advice to the workshop participants in bringing their efforts to a conclusion. We also appreciate the special effort of Dr. Milliken for presenting and then allowing us to copy her materials related to curriculum design in secondary health occupations.

We appreciate the efforts of Paul Speight who was originally charged with the responsibility for secondary health occupations at the Department of Public Instruction. He contributed informative facts throughout our preparation for the workshop and throughout the actual workshop. Margaret Strauss is recognized for her dedicated effort in visiting all existing secondary health occupations programs in the State of Wisconsin during her short term of employment since January of 1974. She is to be commended for her exhaustive effort and complete cooperation in attending committee meetings, selecting workshop participants and corresponding with invited guests and some of the participants. Her conscientious, congenial and engaging personality during the total project effort is appreciated.

Our thanks are extended to the members of the original November planning committee: Paul Speight and Elaine Staaland from the Department of Public Instruction; Dr. Sigurd E. Sivertson, Assistant Dean of the University of Wisconsin Medical School; Dr. Camilla Schloemer, representing the Wisconsin Board of Vocational, Technical, and Adult Education; Helen Powers, former Program Specialist in Health Occupations, U. S. Office of Education; Mr. John Turk from the Hospital Council of the Greater Milwaukee Area; Robert Thompto, Local Vocational Education Coordinator from West Allis Public School System, and his Program Coordinator, Mrs. Kathy Hanold; and Dr. Merle E. Strong, Director of the Center for Studies in Vocational and Technical Education at the University of Wisconsin-Madison. These people were responsible for identifying areas of concern which suggested initial goal and policy statements as recommendations to the Department of Public Instruction. These led to our being able to develop pertinent questions to be addressed by workshop participants.

Special recognition should be given to Dr. Richard Boss for lending his professional expertise and assistance in guiding the coordinator in writing goal statements for the workshop and the developing of questions to be asked of the participants. In addition to the other efforts he extended, his effort as Chairman of the workshop is very much appreciated.

Without the enthusiastic and cooperative effort and exhausting work demanded of Nancy McConnell, the Workshop Secretary, and Wayne Hammerstrom who supplied resource materials, recorded all the workshop activities, and who physically set up and dismantled workshop materials, the workshop could not have functioned as smoothly or been as successful.

We particularly wish to thank Mr. Eugene Lehrmann and Dr. Dwight Stevens for taking time from their busy schedules to address our workshop. It was good for the participants to hear the problems and possible solutions to those problems expressed. Their spirit of desire for cooperation between instructional bodies is commended.

Our sincere thanks is extended to Dr. Joseph Kadish for being our keynote speaker and to Mr. Ruel Falk and James Kimmey, M.D., for their informative speeches regarding health occupations and health delivery systems at the national and state levels. Our thanks is extended to Mrs. Frances Glee Saunders and to Mr. Elmer Schick for participating in the discussions conducted at the workshop. We thank our panelists, Paul Speight, Robert Thompto, Gordon McChesney, Margaret Strauss, and Martha Huffmaster for preparing statements regarding our state commitment to health occupations education at the secondary and post-secondary levels of instruction. As regards national concerns in health occupations training, we are grateful for the panelists, Helen Powers, Frances Glee Saunders and Dr. Elizabeth Milliken for addressing the group.

Ultimately we are most grateful to all of the workshop participants who gave of their time and their expertise to actually construct goal and policy statements within a time structure that was very limited. These persons were: Kenneth Huddleston, Armin Gerhardt, Al Pitts, Theresa Worachek, Robert Thompto, and Neal Blinkman who represented our State Local Vocational Education Coordinators and who acted as group discussion leaders. In addition, our thanks to the other participants: Murval Weidlein, Marie Baertsch, Fay Ebersold, Charles Mehls, Jackie Iyzk, Shirley Morgan, Homer Fratt, Cynthia Ebert, Marilyn Habeck, Nancy Hvamsal, Jackie Pederson, Stewart Nehls, Angela Cyr, Beth Hawkins, Joanne Kirby, Wyla Vasey, Jack Naughton, and Cheryl Drevlow.

Marion Franken
Project S.H.O.W.
Workshop Coordinator

SECONDARY HEALTH OCCUPATIONS WORKSHOP PARTICIPANTS

Margaret Strauss

In selecting twenty-four participants, with varied expertise, for the Secondary Health Occupations Workshop, the following factors were considered:

- a. Person must be currently involved in a secondary health occupations program.
- b. Sincere interest on the part of the participant and dedication to improving health occupations instruction in Wisconsin.
- c. Geographical location of school.
- d. Size of school.

Six local vocational education coordinators were chosen to give leadership. These represented urban and rural school districts and single and cluster programs in the latter category. One of the six was a female.

Fourteen teachers were chosen with their broad range of background being of key significance. Four of this group were health occupations staff members from a Wisconsin Technical and Adult Education School, being employed concurrently or under separate contract with the high school district. Two of this total of fourteen were male, one of which was also a guidance counselor, which provided this facet of input.

Two were male administrators, one of which had considerable experience in developing and implementing vocational programs, and one from a district studying the possibility of starting a program and from a region of the state which is offering little in health occupations programs.

Two were female coordinators of programs, one from an urban area and the other rural.

Considering operating programs in 1973-74, geographical representation was achieved to the best of our ability. Currently operating programs in the northeast and southwest sections of the state are almost nonexistent. (See attached maps.)

Seven of the twenty-four were from urban areas of the state. Of those remaining, five are associated with programs involving clusters of schools.

An earnest attempt was made to have representation from health agencies, but all five persons contacted were unable to attend either initially or as the opening of the workshop approached. All expressed interest and encouragement, but their other responsibilities prevented them from participating or even observing. There was input in this vein from speakers and panel participants.

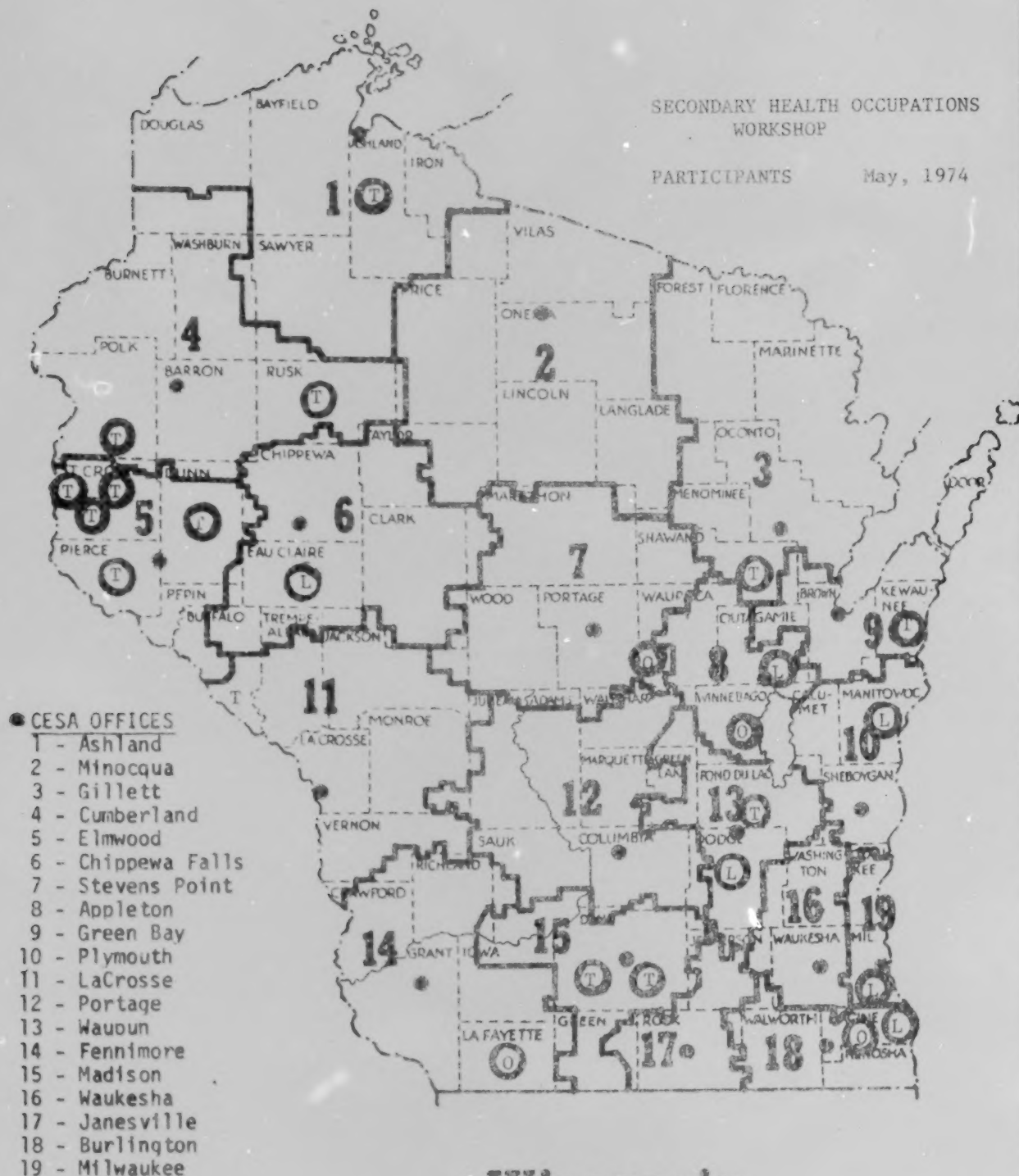
In attempting to establish guidelines for secondary health occupations education in Wisconsin in the past, factions have developed between educators at secondary level and those at post-secondary level and also between educators and health professionals. These past experiences were assessed in making selection of participants. Though each attended this conference as an educator, five of the group had been health professionals in recent years.

It proved to be a very workable group, coming with strong commitments, but willing to have a "meeting of minds" after strenuous sparring of the intellects.

SECONDARY HEALTH OCCUPATIONS WORKSHOP

PARTICIPANTS

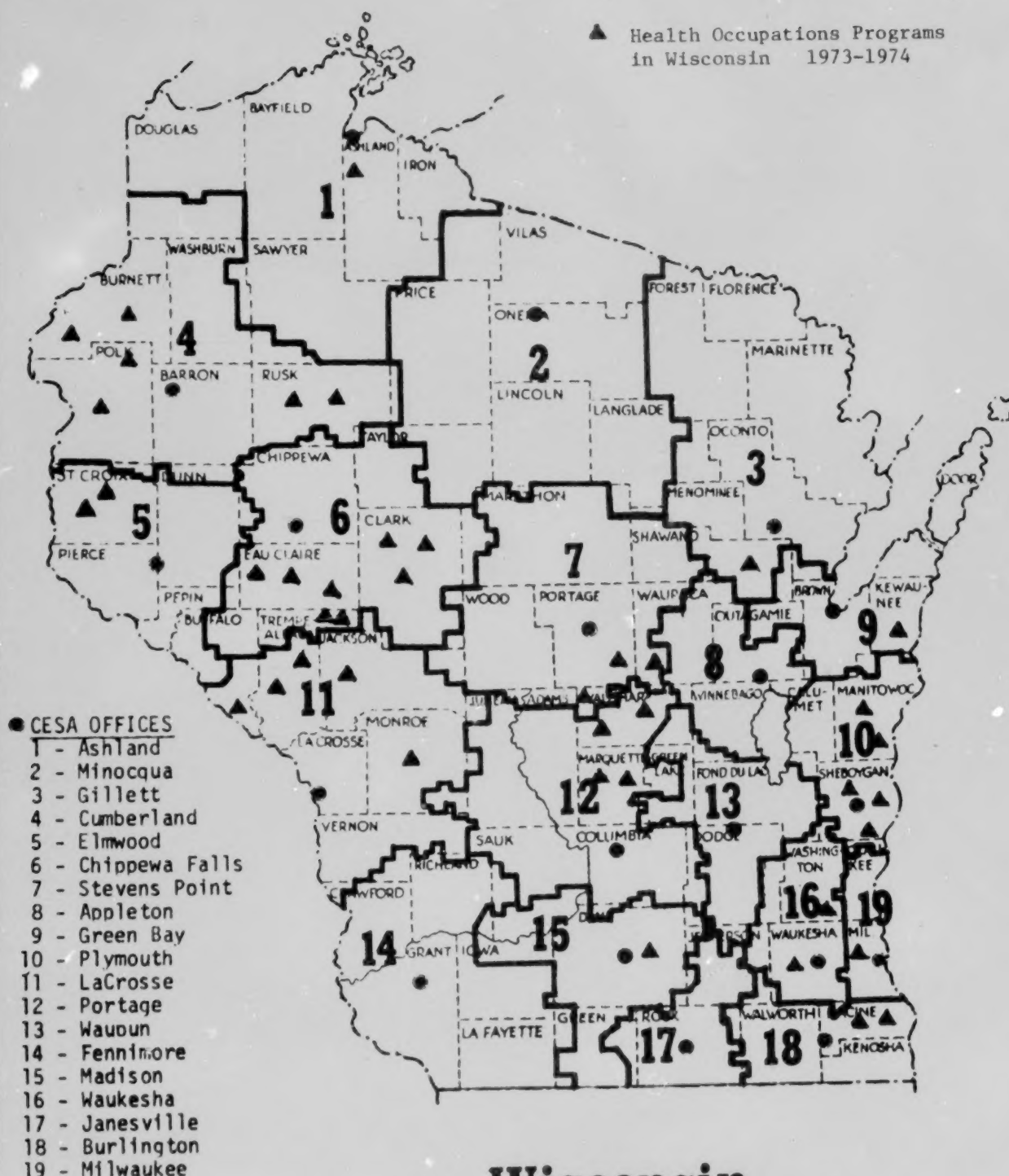
May, 1974



Wisconsin COOPERATIVE EDUCATIONAL SERVICE AGENCIES

Source: Wisconsin Department of Public Instruction.

▲ Health Occupations Programs
in Wisconsin 1973-1974



Wisconsin

COOPERATIVE EDUCATIONAL SERVICE AGENCIES

Source: Wisconsin Department of Public Instruction.

Project S.H.O.W.
LIST OF PARTICIPANTS

<u>Name</u>	<u>Title</u>	<u>Agency</u>
Marie Baertsch	Home Economics, Health Occupations Teacher	Cochrane-Fountain City High School, Fountain City, WI 54629
Neal Blinkman	Local Vocational Education Coordinator	CESA 6 Augusta Area Elementary Augusta, WI 54722
Richard Boss	Research Associate	Center for Studies in Vocational, Technical Education, University of Wisconsin-Madison
Angela Cyr	Program Planner/Instructor	Northeast Wisconsin VTAE 2740 West Mason Street Green Bay, WI 54303
Cheryl Drevlow	Health Careers Teacher/Coordinator	Ashland High School Ellis Avenue Ashland, WI 54806
Fay Ebersold	Health Careers Instructor	Glenwood City High School Glenwood City, WI 54013
Cynthia Ebert	Health Careers Teacher	Ripon High School Ripon, WI 54971
Ruel Falk	Director, Bureau for Career & Manpower Development	Department of Public Instruction, Madison, WI
Marion Franken	Project Assistant	Center for Studies in Vocational-Technical Education, University of Wisconsin-Madison
Homer Fratt	Vice-Principal	Oshkosh West High School Oshkosh, WI 54901
Armin Gerhardt	Local Vocational Education Coordinator	Appleton Public Schools 120 East Harris Street Appleton, WI 54911
Marilyn Habeck	Health Services Coordinator	Monona Grove High School 4400 Monona Drive Monona, WI 53716
Wayne Hammerstrom	Project Assistant	Center for Studies in Vocational, Technical Education, University of Wisconsin-Madison

<u>Name</u>	<u>Title</u>	<u>Agency</u>
Beth Hawkins	Home Economics, Health Careers Teacher	River Falls Public Schools River Falls, WI 54022
Kenneth Huddleston	Local Vocational Education Coordinator	CESA 13 908 West Main Street Waupun, WI 53963
Martha Huffmaster	Vocational Education Consultant, Health Occupations Education	Wisconsin Board of Vocational, Technical and Adult Education Madison, WI
Nancy Hvambal	Office of the Local Vocational Education Coordinator	c/o Lloyd Thor Frederic High School Frederic, WI 54837
Jackie Izyk	Health Careers Instructor	Algoma High School Algoma, WI 54201
Joseph Kadish	Associate Director of Professional Development	Division of Allied Health Education, Bureau of Health Resources Development, Bethesda, MD 20014
James R. Kimmey, M. D.	Secretary Health Policy Council	State of Wisconsin, Department of Adminis- tration, Madison, WI
Joanne Kirby	Health Occupations Teacher	Baldwin-Woodville High School, Baldwin, WI 54002
Roger Lambert	Associate Director	Center for Studies in Vocational, Technical Education, University of Wisconsin-Madison
Eugene Lehrmann	State Director	Wisconsin Board of Vocational, Technical and Adult Education Madison, WI
Gordon McChesney	Local Vocational Education Coordinator	Monona Grove High School Monona, WI 53716
Nancy McConnell	Secretary, Project S.H.O.W.	Center for Studies in Vocational, Technical Education, University of Wisconsin, Madison

<u>Name</u>	<u>Title</u>	<u>Agency</u>
Charles Menls	Paramedic	New Richmond High School New Richmond, WI 54017
Elizabeth Milliken	Coordinator, Health Occupations Teacher Education Program	University of Georgia Athens, Georgia
Shirley Morgan	Health Careers Coordinator	Waupaca High School Waupaca, WI 54981
Jack Naughton	Guidance Counselor	Madison East High School 2222 E. Washington Ave. Madison, WI 53704
Stewart Nehls	Guidance Counselor	Darlington Community High School, Center Hill Road, Darlington, WI 5353
Jackie Pederson	Health Careers Instructor	Ladysmith High School Ladysmith, WI 54848
Albert Pitts	Local Vocational Education Coordinator	Racine Unified School District #1 2230 Northwestern Ave. Racine, WI 53404
Helen Powers	Education Program Specialist in Health Occupations (retired)	Office of Education Washington, DC
Frances Glee Saunders	Education Program Specialist in Health Occupations	Office of Education Washington, DC
Elmer Schick	Program Officer	Office of Education Region 5 Washington, DC
Paul Speight	Project Coordinator in Health Occupations (Administrative Intern)	State of Wisconsin Department of Public Instruction
Dwight Stevens	Deputy State Superintendent	State of Wisconsin Department of Public Instruction
Margaret Strauss	Coordinator of Health Occupations Programs	State of Wisconsin Department of Public Instruction

<u>Name</u>	<u>Title</u>	<u>Agency</u>
Merle Strong	Director	Center for Studies in Vocational, Technical Education, University of Wisconsin-Madison
Robert Thompto	Local Vocational Education Coordinator	Public Schools 9333 West Lincoln Ave. West Allis, WI 53227
Wyla Vasey	Home Economics Teacher	Menomonie Jr. High School 1715 Fifth Street W. Menomonie, WI 54751
Murval Weidlein	Home Economics Coordinator	Racine Unified School District #1 2230 Northwestern Ave. Racine, WI 53404
Theresa Worachek	Local Vocational Education Coordinator	Reedsville High School Reedsville, WI 54230

WORK SESSION GROUPS FOR
SECONDARY HEALTH OCCUPATIONS WORKSHOP

GROUP A	*	Kenneth Huddleston	Ripon, Waupun
	**	Armin Gerhardt	Appleton
		Murval Weidlein	Racine
		Marie Baertsch	Cochran, Fountain City
		Fay Ebersold	Glenwood City
		Charles Mehls	New Richmond
		Jackie Izyk	Algoma
		Shirley Morgan	Waupaca
GROUP B	*	Al Pitts	Racine
	**	Theresa Worachek	Reedsville
		Homer Fratt	Oshkosh
		Cynthia Ebert	Ripon
		Marilyn Habeck	Monona
		Nancy Hvambal	Frederic
		Jackie Pederson	Ladysmith
		Stewart Nehls	Darlington
GROUP C	*	Robert Thompto	West Allis
	**	Neal Blinkman	Augusta
		Angela Cyr	Shawano
		Beth Hawkins	River Falls
		Joanne Kirby	Baldwin-Woodville
		Wyla Vasey	Menomonie
		Jack Naughton	Madison
		Cheryl Drevlow	Ashland

* and ** signify the group chairmen

WORKSHOP GOALS

1. To develop a set of guidelines to be presented to the Department of Public Instruction for Health Occupations Education in the Secondary Schools by:
 - a. Organizing goal statements relative to expectations and outcomes to be accomplished at the high school level.
 - b. Suggesting a number of strategies for implementation of Health Occupation Education at a variety of local educational agencies.
 - c. Enumerating minimum maintenance standards for program operation, e.g., teacher qualification, program duration, clinical experiences, student wages, transportation, entrance requirements and liabilities.
2. To increase knowledge, understanding and awareness of health occupations educators to the need for and development of Health Occupation Education in Wisconsin by:
 - a. Learning about high school level programs operating in Wisconsin and other states.
 - b. Studying the emerging health care trends and needs for training.
 - c. Reviewing the problems of youth and their need to begin a career orientation, explanation and preparation at the high school level.
 - d. Studying health occupational course materials being used in secondary schools.

SECONDARY HEALTH OCCUPATIONS WORKSHOP

May 16, 17 and 18, 1974

May 16, 1974 - Thursday

8:30	Welcome	Richard Boss
8:35	Introduction to the Workshop Program	Richard Boss
	Introduction of the Guest Speakers	Richard Boss
	"Health Care Trends - The Need for Education and Training"	Joseph Kadish
9:15	Workshop Objectives and Format	Margaret Strauss
9:25	Health Occupations	
	"The Students to be Trained"	Dwight Stevens
10:00	Break	
10:15	Health Occupations	
	"Building the Career Ladder Concept into Health Training Programs"	Eugene Lehrmann
11:00	Question and answer session for Stevens - Lehrmann - Kadish	
12:00	Lunch	
1:00	"Curriculum and Instructional Materials in Health Occupations"	Wayne Hammerstrom
2:00	Break	
2:15	Nationwide Health Occupation Training at the Secondary Level - A Panel Presentation	Elizabeth Milliken Glee Saunders Helen Powers
3:15	Question and answer session for Milliken - Saunders - Powers	
4:00	Summary and Announcements	
6:00	Dinner Guest Speaker	
	"Vocational Education and the Health Occupations:	Ruel Falk
7:30	Audio-visual and other types of instructional materials available for participant perusal.	
8:00	"Transfer of Learning", "Health Careers Education", and "ASAHP Glossary of Health Occupations Titles"	Elizabeth Milliken

May 17, 1974 - Friday

8:00 Local Programs in Health Occupations Training

Panel: Paul Speight
 Robert Thompto
 Gordon McChesney
 Margaret Strauss
 Martha Hoffmaster

9:00 Questions and answers sessions

10:00 Break

10:15 Work Session I: Topic I - Formulation of Goal Statements for
Secondary Health Occupations

Group A Helen Powers, Glee Saunders, Margaret Strauss
 Group B Elizabeth Milliken and Marion Franken
 Group C Martha Hoffmaster, Elmer Schick, Paul Speight

12:00 Lunch

1:00 Presentation of Health Occupations Goal Statements by Group Chairmen

Group A
 Group B
 Group C

1:30 Review Goal Statements - Question and Answer Period

2:00 Consolidation and Synthesis of Goal Statements *Group Chairmen
 Consultants

2:00 Work Session II: Topic II - Strategies for Implementation of
Health Occupations Training

**Group Chairmen
 Group A Margaret Strauss
 Group B Helen Powers, Glee Saunders, Paul Speight
 Group C Martha Hoffmaster, Elmer Schick, Marion Franken

2:45 Break

3:00 Present Final Goal Statements

3:15 Work Session III: Topic II (continued) - Strategies for Implementation
of Health Occupations Training

* and ** Group Chairmen
 Group A Margaret Strauss
 Group B Helen Powers, Glee Saunders, Paul Speight
 Group C Martha Hoffmaster, Elmer Schick, Marion Franken

4:30 Summary and Announcements

6:00 Dinner Guest Speaker

"The Changing Environment for Health Manpower" Dr. James Kimney

7:30 Audio-visual and other types of instructional materials
 available for participant perusal.

May 18, 1974 - Saturday

8:00 Presentation of Strategies by Group Chairmen
 Group A
 Group B
 Group C

8:30 Review and Discussion of Strategies

9:00 Consolidation and Synthesis of Strategies

****Group Chairmen
 Consultants**

9:00 Work Session IV: Topic III - Standards for Health
 Occupations Training
 Programs at the Secondary Level

*Group Chairmen

Group A: Teacher Qualifications
 Program Accreditation

Richard Boss

Group B: Program Duration
 Entrance Requirements

Marion Franken

Group C: Clinical Experience
 Student Wages
 Liability
 Transportation

Paul Speight

12:00 Lunch

12:45 Presentation of Standards by Group Chairmen
 Group A
 Group B
 Group C

1:30 Review and Discussion of Standards

2:00 Participant Evaluation of Workshop

2:00 Consolidation and Synthesis Standards

*** and ** Group Chairmen
 Consultants**

3:00 Adjourn Workshop

QUESTIONS TO PARTICIPANTS

The following questions were asked of the workshop participants in an effort to guide them toward specific goal statements and policy recommendations.

Topic I: Formulation of Goal Statements for Secondary Health Occupations

Questions:

1. Should program graduates of health occupations at the secondary level be capable of taking entry employment? (Make a policy statement regarding your opinion.)
2. What specific job entry skills or tasks should be included in the training program?
3. What related courses should be pursued relevant to the health occupations student at the secondary level? (e.g. typing, biology, English composition, etc.)
4. What target occupations should be included? (See Section I - Enrollments in Vocational Education Programs. Also see the schematic representation of the "capstone concept".)
5. What content should be included in high school courses aimed at articulation with post-secondary institutions such as vocational schools, community colleges, colleges and universities within and without the state.

Topic II: Strategies for Implementation of Health Occupations

Questions:

1. What State Department of Public Instruction requirements must be met in starting a new program in secondary health occupations? (See Local Vocational Education Coordinators Handbook)
2. What program options should be suggested to accommodate the following? (You may want to consider such factors as effectiveness, economy, local health facilities and agencies.) For your guidance please see the Wisconsin Administrative Code--Rules of the Division of Health and General and Special Hospitals pp. 44_o, 44_p, 46_d, and 46_e.
 - a. Different size schools
 - b. Isolated schools
 - c. Private schools
 - d. Consortium schools
3. What should the composition of the local advisory committee be? (Please see p. 2-3 Local Vocational Education Coordinators Handbook)

Topic III: Standards for Health Occupations Training Programs at the Secondary Level

Questions:

1. What should the teacher qualifications be for health occupations instructors?
 - a. What should their professional preparation be?
 - b. What should their work experience in the health field be?

2. What should the teacher preparation be as minimum requirements in the following areas?
 - a. Health related courses
 - b. Education courses
 - c. Vocational courses
3. How should student evaluation be done?
4. How many hours of instruction should be provided to health occupation students in high school?
 - a. Exploration
 - b. Related training
 - c. Related work experience
5. What prerequisites must be required of health occupation students in high school?
 - a. What previous course work should be required?
 - b. Should there be a commitment to further training or employment in a health occupation or related health field?
 - c. What should the physical health of the student be? (Please see Wisconsin Administrative Code, Rules of the Division of Health--General and Special Hospitals pp. 440 and p. 79 of Nursing Home Rules.)
 - d. What should the personal hygiene of the student be? (Please see reference item "c" above)
 - e. What student attendance record should be required?
 - f. What should the state laws be regarding age requirements? (See pp. 79 and 80 of Nursing Home Rules)
6. What types of clinical or work experiences should be in the curriculum suggest alternate possibilities?
7. Should student wages be made a part of program requirements? (such as for work experience)
8. What liabilities should be considered or covered? (See Child Labor Law)
 - a. Employer
 - b. Student employee
 - c. School
9. What kinds of agreements must be made between the school and the employer to protect the student? (See p. 3 Child Labor Laws)
10. What are the schools' responsibilities for transporting students to and from exploratory experiences?
11. What are the schools' responsibilities for transporting students to and from clinical experiences?
12. What are the schools' responsibilities for transporting students to and from work experiences?

CONSENSUS STATEMENTS OF WORKSHOP PARTICIPANTS FOR THE IMPLEMENTATION OF
HEALTH OCCUPATIONS EDUCATION PROGRAMS IN WISCONSIN SECONDARY SCHOOLS

I. Recommended Goal Statements

- A. Programs should be designed to help students
 - 1. explore health careers,
 - 2. prepare for entry level employment in the health industry,
 - 3. prepare for entry into advanced education and/or training in health related fields, and
 - 4. become informed consumers of health services and resources.
- B. Programs should provide students with the options to acquire competencies required for entry level employment in accord with standards and regulations enunciated by the health service industry. The local district staff, in consultation with advisory committees, employers and health agencies should select the specific tasks to be taught for job entry.
- C. An individualized instructional plan should be prescribed in accordance with the competencies needed for a student to meet his/her career objective.
- D. Programs should provide exposure to the whole career cluster in accord with individual student's needs, interests and potential.
- E. Programs should be available to any student enrolled in a secondary school.

II. Recommended Strategies for Implementation of Funded Secondary Health Occupations Education Programs

- A. A Secondary Vocational Health Occupations Education Program in Wisconsin must meet the Wisconsin Department of Public Instruction standards as cited in the Local Vocational Education Coordinators Handbook. In addition to Local Vocational Education Coordinators Guidelines, it is recommended that each student submit evidence of a physical examination with acceptable findings.
- B. Program options may include cooperative education, work experience and/or clinical experience, volunteer service programs, internship and/or externship, and/or a combination of any of the above.
- C. Program options should be determined as a result of
 - 1. a local market research of the community,
 - 2. a student interest survey,
 - 3. advisory committee recommendations,
 - 4. all other elements and qualifying factors necessary for an approved vocational program.

- D. Teaching strategies for implementation of programs may include simulation, self-study and/or instructional package, project method, team teaching, individualized instruction, varied multi-media, post-secondary training, and possible integration of commonalities with other vocational education programs (disciplines).
- E. Management options may include mobile labs, shared services, contracted services, and consortiums.
- F. The local advisory committee, representing a cross section of the community should include
 - 1. an administrator of a health facility,
 - 2. a representative from a local Vocational, Technical and Adult Education School (preferably a health career educator),
 - 3. a health occupations employee,
 - 4. a labor union representative,
 - 5. a student, a parent, a guidance counselor,
 - 6. a disadvantaged person and a handicapped person,
 - 7. a school board member and a school administrator, and
 - 8. an attorney and a public relations person.
- G. Types of occupational experiences which might be included in the curriculum are the following:
 - 1. Experiences may be of the on-site simulation type.
 - a. Type A would be a program conducted entirely in the school setting.
 - b. Type B would be a program conducted in a mobile unit.
 - c. Type C would be a program conducted on-site, such as a conventional health care facility.
 - 2. Experiences may be of the co-op type which are described in the Local Vocational Education Coordinators Handbook.
 - 3. Experiences may include volunteer services.
 - 4. Experiences may be of the extern or intern type. (An extern is a student in the Health Occupations Co-op Program who receives on-site experience without pay. An intern is one who receives pay.)

III. Recommended Standards for Health Occupations Training Programs

- A. Teachers of Vocational Health Occupations for a regular three year licensure to teach technical health occupations courses, must have completed the following:
 - 1. a bachelors degree or equivalent
 - *a. It is suggested that the degree be in either the health field or secondary education field.

Note: *a. In trying to keep with the spirit and intent of the group I have not changed the structure of this sentence although it is ambiguous. I believe the intent of the group was to convey that they desire the instructor of a health occupations program to be a person with a strong health field background and a degree in secondary education.

- *b. Equivalency is defined as: A graduate of a two year health field program at the post-secondary level of education, and with 10,000 hours of actual work experience in a health field. For a graduate of a three year program, 5000 hours of actual work experience is required. (Suggested as minimum requirements.)
- c. There is no unlimited certificate for health occupations education--vocational personnel. The initial three year license is nonrenewable. At its expiration, applicants must apply for a five year renewable certificate. To be eligible for the five year credential, the applicant must have completed or received:
 - 1) three years' successful teaching in a position requiring Wisconsin vocational certification for the subjects endorsed on the three year license.
 - 2) three semester credits of appropriate collegiate credit. (95 clock hours of appropriate occupational experience can count as the equivalent of 1 semester credit or 1 clock hour of approved workshop experience can count as 3 clock hours of occupational experience.)
 - 3) the five year certificate can be renewed by verifying 5 semester credits of appropriate collegiate work. (Occupational experience or workshop attendance can be substituted for college credit totally or in part under the guidelines for equivalency listed in 2) above.)
- 2. A professional education sequence consisting of a minimum of 18 semester hours of college work in education should include:
 - a. educational psychology
 - b. methods of teaching in the secondary schools
 - c. practice teaching experience which may be established in an on-the-job experience under supervision.
 - d. organization and administration of Co-op Education, required only for those teaching co-op courses
 - e. principles of vocational education
 - f. first aid instructors certification
- B. Work experience requirements for teachers of health occupations should include:
 - 1. 2000 hours of related health occupations experience earned during actual on the job experience,
 - 2. Workshops and continuing education programs, having approval by the State Superintendent prior to attendance. One clock hour of approved workshop experience counts for 3 hours of occupational experience. Up to two-fifths of the 2000 hours can be satisfied by workshop attendance.
 - 3. State-approved collegiate field experience results in college credit. One hour counts for up to 3 hours of occupational experience.

Note: *b. There was some controversy in the workshop discussion at this point. If one is to stay consistent with the required work experience demanded of other secondary vocational educators, the number of hours required here seems unduly high and if adhered to would discourage well qualified persons from entering the teaching field.

C. Program Accreditation at the Secondary Level should include:

1. Student evaluation should be measured through
 - a. evaluating student performance against the objective by means of a follow up study,
 - b. evaluating student performance on-the-job by a supervisor,
 - c. searching out the employer's evaluation,
 - d. student self-evaluation, and
 - e. evaluation by the teacher--situation, reaction, response.
2. Program evaluation should be done yearly in the following areas of student placement:
 - a. student evaluation of the program,
 - b. employer evaluation of the program using instruments, interviews and word of mouth,
 - c. Advisory Committee evaluation of the program; amount of funding granted by the State of Wisconsin Department of Public Instruction,
 - d. parental evaluation,
 - e. ease of student placement,
 - f. follow-up, and
 - g. other community feedback.

D. Program Duration at the Secondary Level

1. A student's decision to study health occupations should be a natural outgrowth of the district K-12 career development program. A health occupations survey exploration course of approximately 90 hours should be a minimum prerequisite for entrance in capstone courses. In addition to guidelines for capstone programs found in the LVEC Handbook, other methods for providing occupational experiences may be provided.
2. The student-trainee should work enough hours per week to experience the complete cycle of the work week.
3. The health occupations student should have a minimum number of work and/or related experience hours necessary to develop entry level competencies.

E. Prerequisite entrance requirements required of health occupations students:

1. There are no course prerequisites for entry to the health occupations survey exploration course.
2. The health occupations education capstone course requires a vocational commitment to the broad area of health occupations.
3. Students entering the capstone program will submit evidence of health which will not endanger the students or persons with whom the student may come in contact.
4. The student enrolled in the capstone program shall submit evidence of good physical health commensurate with requirements of participating health care training stations.
5. The personal hygiene of the student will conform to the requirements of the health care delivery system.
6. The age standards for health occupations education programs will be the same as standards for other co-op vocational disciplines as recognized in the State of Wisconsin.

F. Student wages recommendations are:

1. All students in co-op programs who are paid receive a minimum wage.
2. All students in a paid co-op program should receive a comprehensive learning experience.
3. All students in co-op programs who are working as externs or voluntary workers be accepted in the co-op program.

G. Liabilities recommendations are:

1. Employer liabilities should include responsibility for student safety such as workman's compensation and liabilities, and student negligence toward persons or equipment.
2. For student employee liabilities it is recommended
 - a. an attorney be on the local advisory committee,
 - b. the staff attorney from the Wisconsin Department of Public Instruction be consulted to define the extent of the Health Occupations program,
 - c. that the forms of protection for the student in this program be stipulated in terms of personal liability and injury, and that forms of existing insurance coverage or additional insurance coverage be adequately provided, and
 - d. that publicly funded, local legal services should be utilized to review all policies and procedures regarding student employment.
3. For school liabilities it is incumbent upon the coordinator of the program to assure:
 - a. that instruction be provided to each student in any aspect of the Health Occupations Program regarding pertinent safety and health policies of each Health Care Facility and/or Health Care Delivery System,
 - b. that the training agreement described in the Local Vocational Education Coordinators Handbook be revised to accommodate the various types of learning experiences provided in the Health Occupations programs,
 - c. that individual Boards of Education take responsibility for seeing that teachers or coordinators be protected through insurance for liability as it relates to their involvement with the Health Occupations programs.

H. School transportation responsibilities relating to students:

1. The school is encouraged to provide transportation for group exploratory and clinical experiences in Health Occupations programs.
2. When the student provides his/her own transportation to individualized experiences, both transportation and liability are assumed by the parents and students. It is recommended that a plan for such transportation be developed and implemented by the concerned parties.
3. The student is responsible for his or her transportation and liability to and from paid or unpaid occupational experiences.

BIBLIOGRAPHY

1. State of Wisconsin. Department of Health and Social Services. Division of Health. Wisconsin Administrative Code. Rules of the Division of Health. General and Special Hospitals. (Chapter H 24) Effective June 1, 1968. May 1968.
2. State of Wisconsin. Department of Health and Social Services. Division of Health. Wisconsin Administrative Code. Nursing Home Rules. (Chapter H 32) Effective July 1, 1964 (and amended) June 1964.
3. State of Wisconsin. Department of Public Instruction. Wisconsin Certification Standards. (Bulletin no. 1809) Madison, Department of Public Instruction, 1972.
4. State of Wisconsin. Department of Public Instruction. Division of Instructional Services. The Vocational Education Program Unit. LVEC Handbook. Madison, Department of Public Instruction, 1970.
5. U.S. Department of Industry, Labor and Human Relations. Child Labor. (Chapter Ind 70) Published in Register, February 1974, no. 218.

Note:

The above bibliography was used to help to determine the statements reached by the workshop participants.

HEALTH CARE TRENDS--
NEEDS FOR EDUCATION AND TRAINING
MAY 16, 1974

Joseph Kadish, Ed.D.

It seems that many keynote speeches these days refer to Alvin Tofler's best seller "Future Shock". So why should I be different? The central theme of "Future Shock" is that current scientific, technological, and sociological phenomena are developing so rapidly that in the not-too-distant future, the impact on people will be momentous. It will take much getting-used-to. Those of us who have been observing the health scene know that this is all too true.

From many leaders in the health field we hear frequent reference to a "non-system" which is growing more chaotic at the same time that some of the most dramatic advances are providing for improved health status of the population and, what is more important, the promise of even higher levels of health. The transformation of this "non-system" into a more rational system for health care delivery is foremost in the thinking of many health planners.

What has brought about the promise of improved health of our Nation is increased medical and scientific knowledge of health maintenance and disease, a broad array of modern-age diagnostic tools and therapeutic regimens, and increasing, but still inadequate, access to health care. For all these health care advances, we can thank the millions of persons who represent some 125 to well over 200 professions and occupations (depending on who's doing the counting) in an industry which is either first, second, or third among the industries in this country by virtue of the number of persons employed. The health professions and occupations include more types of workers than most people realize and range from the post-doctoral super-specialist researcher or health practitioner to the hundreds of thousands of aides and other entry-level persons. They keep this gigantic system moving and serving an ever-increasing population. Unlike other major industries, the health industry, despite technological advances, is characterized by economists as "labor intensive". This of course means that most of the work gets done by people not machines. That is why, for example, that about two-thirds of the costs of operating hospitals are labor costs and why health manpower education and training has developed into such a prominent position as this Nation directs more efforts and funds toward health and medical care. That is why, also, that vocational education on the secondary level, the subject of this workshop, is an important subject of discussion and inquiry.

Some of the satisfactions of working in any field are derived from opportunities which are afforded for seeing a little into the future (based largely on the present) and these satisfactions are especially available in the health field.

Recent health and medical advances point the way for delivery of more and better health services and these advances have significant implications for health workers.

Recent health advances have been impressive as noted in some recent unpublished data for the period from 1950-69 developed by the National Center for Health Statistics in the Health Resources Administration. Let me provide a few highlights.

Dr. Kadish is Associate Director of Professional Development, Division of Allied Health Education, Bureau of Health Resources Development, Bethesda, Maryland.

Although rates have been stable for the 15 leading causes of death in the U.S., age-adjusted rates, which allow for the effect of the changing age composition, reveal an overall downtrend for the population as a whole during the period from 1950-69. There was a 15 percent decrease in heart diseases, 28 percent decrease in peptic ulcers, 43 percent decrease in arteriosclerosis, 30 percent reduction in infant mortality, 21 percent decrease in congenital anomalies, and more modest decreases in cerebrovascular diseases, influenza and pneumonia, suicide, nephritis and nephrosis.

On the negative side, slight increases in mortality rates were noted among malignant neoplasms and diabetes, but large increases were noted in bronchitis, emphysema, and asthma (106 percent), cirrhosis of the liver (67.1 percent), homicide (75.5 percent), and accidents (rates not clear).

I would like to provide for a few examples of programs that show promise for improving the health of the Nation.

Hypertension

It might be a good idea to start with hypertension, since May has been designated "National High Blood Pressure Month." Hypertension has attracted national attention since relatively recent studies have found that it causes some 60,000 deaths a year and plays a significant role in the development of coronary heart disease, stroke, and other cardiovascular disorders. It afflicts an estimated 23 million American adults (one out of every seven). About half of these hypertensive Americans are not aware of their elevated blood pressure, and only about one-fifth of them receive treatment adequate to control their high blood pressure and reduce complications.

Fortunately, there are now available a wide variety of effective blood pressure lowering drugs. The campaign for combatting hypertension is being sponsored by the American Medical Association, the American Heart Association, the National Medical Association, the Citizens for Treatment of High Blood Pressure, and the U.S. Department of Health, Education, and Welfare.

Without going into the many activities associated with the control of hypertension, it does not take too much imagination to recognize the impact that attention to this disease will have on health manpower. It certainly will encourage more visits to physicians' offices and health centers and will utilize the services of all levels of health workers.

The control of hypertension is only one of several factors which predispose persons to heart attacks. The entire field of heart, blood vessel, lung, and blood diseases is being currently redefined and new legislation with increased funding is administered by the National Heart and Lung Institute of the National Institutes of Health.

Cancer Control

Next to heart and blood vessel diseases, cancer is the second leading cause of death and disability. For the most part, both the public and health professionals exhibit strong feelings of fear and anxiety about cancer and, of course, much of this can be expected. However, there have been some giant steps taken in this field which I have learned about primarily through my service on the Cancer Control Program Review Committee of the National Cancer Institute and which has involved site visits to some of the leading cancer centers in the country. The most significant developments seem to be the establishment of cancer control centers which utilize a team concept toward cancer therapy. Whereas formerly, cancer treatment centered on one modality such as radiation, surgery, or chemotherapy, current treatment methods use

combined approaches with treatment protocols established by teams of physicians and carried out by a wide range of health workers with special training in oncology. These treatments have been most dramatic, resulting in long remissions. In some cancers, notably the leukemias, new drugs have resulted in especially good results with long, and to date, a significant number of complete remissions. All-in-all I have noted among those who work in the cancer field a positive attitude toward cancer which to me would have been unbelievable had I not had these recent experiences.

A strong impetus for aggressive action in cancer control has been the enactment of the National Cancer Act of 1971 which not only has encouraged more research in cancer, but in addition has stimulated the organization of resources and manpower in programs of prevention, detection, treatment, and rehabilitation.

Emergency Medical Services

Accidental injury is the leading cause of death among all persons ages 1 to 38. Each year more than 52 million U.S. citizens are injured, of whom more than 110,000 will die, 11 million require bed care for a day or more, and 400,000 suffer lasting disability. Approximately 40 million persons seek care each year in hospital emergency departments as a result of accidents, heart disease, stroke, poisoning, diabetic coma, convulsive disorders, and many other illnesses.

Emergency medical service is regarded as one of the weakest links in the delivery of health care in the Nation which was called to national attention by the publication in 1966 of "Accidental Death and Disability: The Neglected Disease of Modern Society", by the National Academy of Sciences, National Research Council.

Since 1966, major progress has been made by the National Academy of Sciences, National Research Council, certain medical specialty organizations, the U.S. Department of Transportation, and the U.S. Department of Health, Education, and Welfare. Expressions by the President in his 1972 State of the Union Message and further action of the Congress resulted in a recently enacted law, The Emergency Medical Services Systems Act of 1973, which provides for the establishment and expansion of emergency medical care systems in geographic entities and includes provisions for the training of emergency medical services personnel on all levels from the technician to the physician. The programs to be developed under this law should result in improved systems of care and better trained personnel which will make some inroads in the prevention of death and disability due to accidents and emergency illnesses.

Other Health Advances

In addition to the major advances in health which I mentioned, there are many others which are coming to public attention. An entire range of occupational hazards to health are becoming increasingly recognized, such as asbestos and vinyl chloride, just to mention a few.

Recent studies, notably those at the Mt. Sinai College of Medicine, have disclosed high rates of cancers of the pulmonary system and other sites among workers who handle asbestos. More recently, vinyl chloride, a gas primarily used in the plastics industry, has been identified as a source of cancer, primarily of the liver. Needless to say, thousands of coal miners suffer from black lung disease. These are but a few of the many occupational hazards that are gaining the attention of those concerned with health in industry.

The unique characteristic of many of the diseases which I have mentioned is that preventive measures are known. A well known dictum of public health officials is that the major advances in improving morbidity and mortality rates is the institution of preventive measures.

Health Delivery Systems

I have already mentioned emergency medical services systems as a major development in improving access to health care. There are many other new concepts which are coming to the fore.

National Health Insurance

Earlier this year it was thought that because of the great differences between the national health financing plans of the Administration and that of Senator Kennedy, a law would not be enacted for many months. Major modification of the Kennedy plan now bring both plans so close together, that many persons believe that it is possible for passage of national health insurance during this Congress. The features of both bills, despite many criticisms, will result in covering the costs of medical care for the vast majority of our population, assure certain levels of care for lower income groups, and guarantee the maximum any family or individual would have to pay annually despite the amount of services required.

Health Maintenance Organizations (HMO's)

HMO's, another name for prepaid, comprehensive health care organizations, is not new but gained attention mostly since World War II. Until a few years ago there were only a handful of HMO's, but they have grown at a steady rate. More recently they have been recognized both within the Federal Government through the HMO Act, and in the non-governmental sector as well, as organizational mechanisms for delivering high quality medical care in settings which would allow for financial economies. One of the emphases in the structure and functions of HMO's is the ability to provide comprehensive care, remove economic barriers to service thereby recognizing and treating illnesses in their early stages, and minimizing the need for hospitalization and other forms of longer and more costly care.

The HMO Act, although separate from national health insurance, is expected to be a component of an improved system of health care delivery.

National Health Policy and Health Development Act

Three bills which are now before the Congress, with only relatively minor differences, aim to bring about within States a more coordinated relationship between health planning and development.

The legislation would provide for a national council for health policy and set up State mechanisms for areawide planning, regional medical programs, and facilities construction, and would carry out many additional functions. The impact of this pending legislation is far-reaching and when it is enacted will make a significant impact on the health planning process.

I have not, by any stretch of the imagination, covered all of the significant changes in health care and health care delivery which are already under way or about to be launched. But I hope that I have indicated that there is enough brewing that would, if rationally organized, provide for better health care and access to health care than we as a Nation have achieved to date.

All of these changes have strong implications for health manpower--the kinds of persons to be trained, the levels of training, and where they will be trained.

Here are a number of expectations:

1. As a result of improvements in therapy for various health problems, certain health occupations are likely to need more personnel. For example:

- a. With the expansion of emergency health services, there is likely to be a need for persons trained as emergency medical technicians.
- b. With kidney dialysis now provided for Medicare patients, technicians to operate dialysis machines will be needed in larger numbers.
- c. With the inevitable increase in various kinds of biomedical technology, there will be an increasing need for persons to maintain and repair various kinds of equipment. Although biomedical equipment technicians are not classified as health personnel, some basic knowledge of health, related to equipment and instrumentation, is necessary.
- d. Greater attention to the control of heart diseases will require workers to perform a variety of functions including the vast number of blood pressure determinations.
- e. The entire range of preventive services will place increasing demands on medical laboratories to perform a range of diagnostic tests.

2. As more efficient organizational arrangements are developed, more attention will be centered on efficient utilization of personnel. Much of the work of highly trained professionals will be delegated to those with lesser training. This will tend to expand the functions of entry level persons and those on the technician levels.

- a. The increase in health maintenance organizations will probably result in the delegation of additional functions to allied health workers.
- b. With increasing emphasis on efficient organization both in ambulatory care facilities and in in-patient facilities, various levels of administrative and managerial personnel will be needed. This will require increasing attention to such entry level workers as ward clerks, office managers, and other workers.
- c. There are still many segments of our population, the disadvantaged, including poor whites and poor minorities, who have not had access to health care. This suggests the need for outreach workers, community workers in the inner city and in rural areas, to encourage the utilization of needed health care.

These are but a few examples of many current developments which are likely to have a future impact. They are not by any means an analysis of specific needs nor do they apply to levels of occupations. The only generalization to be derived from these observations is that the scientific and technological developments today are sure to impact on the health manpower needs of tomorrow. Further, it suggests the need for planners of health manpower education and training programs to keep attuned to developments in the broad field and specifically in the health manpower market.

Those of us who are planning for health occupations education training in the secondary school level have many sources of information available

which can keep them abreast of the field--to ensure that planning is forward looking and not just related to the needs of the moment. Valuable sources of information and guidance are such agencies as State and Areawide Comprehensive Health Planning Agencies, health careers councils (in Wisconsin, a part of Wisconsin Health Council), and various professional associations in the health field on the State and national levels. With current emphasis in the Federal Government in enhancing roles, functions, and responsibilities of regional offices, it would be particularly important to keep in close touch with the Region V office of the U. S. Department of HEW. Miss Ethel M. Payne is the Associate Regional Health Director for Manpower.

There are many questions to ponder as this workshop progresses through the next three days. The most relevant message that I can give is to keep in view the broad field of health manpower and the many critical issues to be encountered. It is only in this way that career education on the secondary school level can hope to make its appropriate contribution.

SECONDARY HEALTH OCCUPATIONS WORKSHOP
 WORKSHOP OBJECTIVES AND FORMAT
 MAY 16, 1974

Margaret Strauss

...Dr. Kadish's allusion to new treatments and new occupations, I think, should inspire us to take serious note of what might lie ahead in the field. On behalf of the Department of Public Instruction I would like to welcome you and to say thank you for accepting our invitation to this three day session. If you have studied your agenda, which I hope you have, you will see that it is a bonafide workshop. At any rate, by the time Saturday afternoon comes around, I am sure that you're going to be convinced that it was a work session.

Some of our expectations: I want to say that we do expect you to stay here or be here for all of the sessions and participate in the entire workshop as planned. The very kind people here at St. Benedict's have planned and reserved meals with this in mind and, of course, the fees are charged accordingly. All the goals of the workshop, as developed between the DPI and the Center for Studies, have been established with the idea of full participation. In other words we want you all to be here all of the time.

The health occupations situation in Wisconsin, I think, can be likened to a gradual increasing beat of a drum. We continue to have more and more schools or districts expressing interest and making inquiries as to possible development of programs in health occupations. And you people are those whose interests have in recent years generated implementation of viable programs in health occupations at the secondary level, or you are currently teaching in these programs.

Why have we planned this workshop? Why has DPI requested it? First of all, we have a wide variety of programs in the State. We have varied needs within the communities. We have varied backgrounds of those people who are assuming responsibilities for the programs. We have much eagerness for direction. We lack programs at the college and university level to prepare teachers to teach health occupations per se. And we lack certification requirements for a health occupation teacher at this point; however, we have students who earnestly desire to enter the health occupations vocations. Now none of these factors, as I see it, are to be ignored. Rather each is accepted as a challenge or a significant reason to move ahead in the development of health occupations at the secondary level. So the Department of Public Instruction felt that bringing you people with expertise and experience together would be a logical approach to come up with some concrete recommendations. The Center for Studies in Vocational and Technical Education at the University has shown evidence of its expertise in conducting productive workshops many times over; so our Department requested that they conduct just such a workshop. Dr. Merle Strong gave us direction in the planning stage. Since his illness, Dr. Lambert and Dr. Boss have been generous with their guidance. We are indeed grateful to them and especially to Marion Franken, Project Coordinator. Her capabilities as an organizer are most commendable. If you look at the agenda you'll know what I mean. I am sure that you will concur.

Margaret Strauss is the Coordinator of Health Occupations Programs for the State of Wisconsin Department of Public Instruction.

If you have read the goals, hopefully you have noted the format and the goals and the groups also. You'll note, then, that in the three groups that are set up, backgrounds of people have been considered. They are heterogeneous and this is what we want. Note also there are two chairmen: a chairman and a co-chairman, and each will be functioning in very key roles. For example, tomorrow at 2:00, on Friday, the chairmen will be meeting together to consolidate and synthesize goal statements from the three groups and at the same time the co-chairman will take over the committee and put your back to the grindstone to progress on the next assignment. The schedule looks rather tight, but after dinner both evenings you are free to pursue the resource material that is here. Wayne Hammerstrom will have it well distributed and we have some other people coming with displays that you will be able to look at, and we hope you will also informally share ideas. We urge you to be a true participant. You all have ideas...you all should have an opportunity to express them...none of you should just be listeners. We want to know your thinking. By Saturday we expect to have something concrete. As Rod MacLeisch said this morning on a news commentary when he spoke of the tragedy in Israel: "all people don't think alike." We know that all of you people don't think alike, but we expect you to be aware of communication, cooperation and compromise and come up with something very helpful to us in the Department.

It gives me great pleasure to introduce to you Dr. Dwight Stevens who will speak on the subject of students to be trained. He is the Deputy State Superintendent of Public Instruction. He has his master's and his doctorate from the University at Madison in educational administration. He and Dr. Thompson have had demands, beyond their usual duties, in the last few weeks; so we're especially grateful for his taking time to come here today to give us a little direction and challenge in the field of health occupations as far as students are concerned. Dr. Stevens....

THE STUDENTS TO BE TRAINED
MAY 16, 1974

Dwight Stevens

The importance of the allied health professions as career opportunities for young people was most succinctly stated by Dr. Leonard Fenninger, Associate Director for Health Manpower, National Institutes of Health, when writing for the book, Career Opportunities: Health Occupations. I would like to open with a couple of paragraphs from that work.

"In 1900, for every physician there were less than two other health workers. Today there are approximately 12 health workers for each physician, and the ratio is increasing. The situation with dentists and nurses is less dramatic, but the trend is in the same direction.

"Since the early 1900's we have found cures for or ways to control many of the diseases which at that time required the nation's health personnel to devote their talents and energies to caring for patients after they became ill. In the 1970's, we are concerned with making these cures and controls available to more people, with the prevention of illness, with the control of the size of the world population, and with the protection of the environment. Attention to these concerns will necessitate an increase in the variety of skills and the number of people involved in providing health services, and will change the role of the physician, dentist, and the nurse even more than it has in the last decade...

"Employment opportunities for health technicians are expanding at a phenomenal rate. Between 1950 and 1967, the number of workers in the allied health category almost tripled, and amounted to 19 percent of the labor force in all health occupations. By 1980, it is estimated that more than one million people will be working in allied health occupations. This will represent 63 percent more workers in these occupations than there were in 1967. In spite of this anticipated increase in number of workers employed, the shortage of workers with adequate training in these categories is expected to persist. Therefore, the present plentiful opportunities for qualified people in the many health categories will continue for some time to come.

"The great urgency for a significant increase in the number of qualified personnel to provide health care and environmental health services can be attributed to four principal socioeconomic forces: (1) rapid growth of the population and the changes in its demographic characteristics; (2) development of knowledge in the health sciences and technologies; (3) changes in sources and methods of payment for health care; and (4) changes in social values."*

These comments by Dr. Fenninger, as well as many others we are aware of, indicate quite clearly the need for the public schools to acquaint their students with opportunities in health careers.

To some degree, the same can be said of many other occupations.

So among the responsibilities of the public schools, we feel, is the teaching of an awareness and an appreciation for the world of work.

* Leonard Fenninger, M.D., Associate Director for Health Manpower, National Institutes of Health, in Career Opportunities: Health Occupations, J.G. Ferguson Co., Chicago. 1970.

Dwight Stevens is the Deputy State Superintendent, Department of Public Instruction, State of Wisconsin.

For the past several years the annual Gallup Poll on public attitudes towards education, published in the Phi Delta Kappan, has shown one consistent overwhelming opinion: that parents and the public support an increased emphasis on career education in our public schools. In fact, the percentage figure of this response hovers around 90 percent positive.

The question of career education brings up in turn the fundamental question of just what it is that we expect our schools to do. Let me give you some of my thoughts on this subject. The first obligation of the public schools, I believe, is to prepare children to function effectively in the kind of society that we enjoy in our country. Not just merely to exist in it, but to contribute to it, whether this is through the traditional work mode, or through service oriented pursuits, or through the role of family manager.

I do not feel that it is the proper role of the public schools to organize themselves as training institutions for the needs of industry, business, or other institutions except as these needs are correlated to the basic needs of knowing and awareness; and I would emphasize here that these correlations are abundant.

But we would be doing a poor job of teaching awareness if we did not cover what is probably the most significant area of our society, the world of work.

The Wisconsin approach to career education is programmed to do just that. The guidelines for career education recommended by the Department of Public Instruction suggest that career education be made an integral part of the total curriculum beginning at the kindergarten level. Certainly, we are not teaching five year olds to fix cars or design electrical circuits, but we do recommend learning experiences based on the world of work. All of you have seen young children imitating this world in their play, and play is an integral part of the learning experience in early years.

Beginning in early adolescence it is recommended that career education opportunities be provided for students to test their interests and aptitudes through short term, actual or simulated, exploratory work experience. Middle school and junior high students can begin to develop an understanding of how one's occupation can satisfy personal needs as well as those of society. Students at this level can also begin to develop discriminating information gathering skills so crucial to establishing tentative occupational interests. The high school career education program should be geared to helping youth establish realistic career objectives and make realistic plans to work toward these objectives. For many students, specific vocational education opportunities, including on-the-job training, in cooperation with local business and industry are provided.

So then, the one goal is training toward specific jobs for those who want such training, but even more important is that goal of providing all students a respect and appreciation for the world of work, an appreciation for individual differences and for the dignity and worth of every individual, regardless of occupation.

These goals loom increasingly important as we look at a phenomenon in our society that is becoming more apparent every day. That phenomenon is worker alienation. All of you have known or know members of the "Now Generation" who are, as they say, philosophically opposed to the idea of work, or to the Puritan Work Ethic as they are fond to call it. This attitude is not necessarily because they are lazy, but because the word work has somehow developed a negative connotation in their minds. We hear such terms as materialism, acquisitiveness, and Money grubbing.

In no small measure, this cynicism has its roots in the technological development that permits our country to produce such vast quantities of goods, and, not so incidentally, to enjoy the standard of living that we do. This is the production line model, the breaking down of a complex job into a series of simple parts so that one person learns how to do his small part quickly and easily. But this almost robot-like kind of mechanism is losing credibility, not only with its workers, but with the consuming public which is the often frustrated recipient of the toaster that won't toast or the iron which won't iron; flaws which are the result usually of worker boredom or uncaring attitudes.

It seems illogical for a person to spend time in a high school vocational program, and then perhaps a year or two in some post-high school technical training in order to spend eight hours a day putting bolt number 49 into socket number 75, and to do this for 8 hours a day, day after day and even perhaps year after year.

So I am saying that education can't do it alone. The appreciation for work can be developed only in cooperation with the employing institutions.

There are many other ways employers are trying to give workers greater autonomy in determining the way work will be done, the hours they will work and some real voice in the decisions that affect their work and their status as workers. They do not necessarily do this out of a sense of social conscience, but because there is valid evidence to show that giving their workers pride in the work is a way to improve efficiency and quality.

I have used the production line analogy because the work alienation on the production line is quite apparent. However, we can also find similar situations in many occupations, and one of them is an endeavor quite close to me--the public schools. It takes the form of pupils who see no good reason for coming to school; no relationship between what they are asked to learn in school, and what they might do with it when they leave; and no relationship between one school subject and another.

We can sometimes see it in the teacher himself or herself. Here is a teacher who may have spent 17, 18 or more years in the public schools and in college learning to master this profession. This teacher may have had a broad liberal program in a variety of subjects with 30 to 40 credits in education. And yet it is possible that he or she may end up in the same classroom teaching the same subject in the same way, at the same grade level, to essentially the same kinds of students for the next 20 or 30 years.

All of you have been witness to the previously unusual fact of teacher strikes, or the threat of strikes. As I have observed these controversies in the past few years, the issues usually go far beyond money alone. Certainly, salary levels are most often involved, but along with the salary questions is usually a list of many many other issues, quite likely involving the conditions of work.

It is this presence of worker alienation on the part of pupils and teachers that lies behind those efforts of career education to engage in such activities as encouraging a project approach to instruction, encouraging team teaching, encouraging individualized instruction, encouraging greater student and teacher participation in decisionmaking, encouraging flexible scheduling, and encouraging performance evaluation rather than totaling up the number of classroom hours.

I feel the point is this: if students were satisfied workers in school, if they felt that they had accomplished something worthwhile, it seems the logical step is that they would move from school into industry or business as satisfied workers.

This career education movement represents a call for educational reform based on the needs of the post-industrial service oriented occupational society. It does not mean, however, the turning over of our schools into technical training institutions. It is not a call for weakening our basic educational standards in any way. The case for career education, the evaluation of career education, is going to be measured first and foremost in our ability to increase pupil achievement at all levels.

I have been generalizing on the concept of career education as we look at it from within the Department of Public Instruction.

Now, I would like to move into a more specific area and explain briefly a current program we are successfully using to assist the schools in career education information and instructional services.

This is the WISC program (Wisconsin Instant Information System for Students and Counselors.) It is an occupational information system using the concepts of data processing and microfilm to provide information on specific occupations to secondary school students.

Included in the over 240 job descriptions are 38 health occupations. Each of the occupations is described according to the duties performed, work environment, wages, aptitudes needed, physical requirements and available training opportunities. All of the health occupations require less than four years of college training for job entry.

In addition to the occupations listed, a number of human resources are listed in the form of health career representatives and counselors. The health career representatives are located in each hospital in Wisconsin while the career counselors (people actually working in the health field) are found in most communities in the State. They are willing to meet with anyone interested in obtaining specific information about any health occupation found in WISC or any other resource.

WISC is made up of three components: a deck of cards, an index and a microfilm reader or reader/printer. To locate a particular occupation the student first goes to the index. Occupations are arranged according to specific occupational clusters. Within each cluster, occupations are listed in alphabetic and numeric order corresponding to the arrangement of the deck of occupation cards. Once an occupation has been selected, the student goes to the deck to find that particular occupation. The student then places the card into the microfilm reader or reader/printer and scans the information. If the machine has print capabilities, the student may obtain a printed copy of the microfilmed information.

I have here a printout sheet - the same copy that the student would read from the microfilm projector - or have to keep if the reader has a printout capability.

This particular sheet is a four page printout covering the occupation of Dental Hygienist.

Shown in quite some detail are job duties, normal work environment, salary ranges in Wisconsin, current employment opportunities and projections of future demand, advancement opportunities, location of the job opportunities in Wisconsin, desired attitudes, interests and temperament, physical requirements, educational requirements for entry, training opportunities and a list of schools offering dental hygienist training, costs of training, related occupations, and references to places where the prospective students can obtain further information.

As I mentioned before, this printout is only one of the 240 occupations including 38 health occupations in the WISC deck. And the deck is being constantly refined and updated.

The DPI investment of resources in career education is significant and still growing. One major publication, the K-12 Guide for Integrating Career Development into Local Curriculum, was used as a model guide in a national training conference sponsored by USOE in 1972. I would like to close by quoting from that work the goals of career education in Wisconsin as we see them:

- a respect and appreciation for individual differences and for the dignity and worth of every individual, regardless of occupation.
- an awareness of a wide variety of occupations and a respect and appreciation for the importance of all work in our society.
- an understanding and acceptance of their personal interests, abilities, physical assets or limitations, personal traits, needs, and values as they relate to available occupational opportunities.
- a desire to plan and prepare for an economically independent, meaningful, and satisfying life.
- some broad open-ended career objectives and the necessary preparation and marketable skills for entry and advancement within a cluster of occupations and/or the prerequisites for entry and success in post-high school education of their choice.

To accomplish these goals, educators, students, parents, and representatives of the community plan educational programs designed to meet the needs of individuals at each stage of their growth and development, including "career education" to facilitate career development.

QUESTIONS TO DWIGHT STEVENS
ON "THE STUDENTS TO BE TRAINED"
MAY 16, 1974

Q: Are you considering any change in your secondary delivery system?

A: I think that much of this is going to come from the grass roots involvement, the kind of involvement we have here. I think that the thrust really in health occupations is going to be through other areas. Change that we see cannot come from one individual. I guess I attempted to express feebly this morning that just because people are in high places or because you are appointed to a position doesn't mean that you have a closer affinity with God. Unfortunately, I keep looking and reaching for something that I must have been given along with some responsibility to give me added insight. I have suddenly come to realize that that added insight I can only get from other people; and I think that if we really want to do the job we're going to have to turn up our hearing. We're going to have to do more than just listen; we're going to have to hear and we're going to have to react and do some things that are going to make our thrust meaningful and hit the mark, so to speak. So in response to your question, I would say that we are in a mood to do and follow through on directions we are given.

Q: Have you considered the area concept in a delivery system for education?

A: We looked at several possible models. We talked about area...etc. There are all kinds of things that could have happened back when. They are more difficult now because the system has become fixed. There are those who believe that there may have been a time when you could have brought together the institutions and coordinated vocational-technical programs by area. We are fostering the notion that we ought to do whatever we can to foster inter-district cooperation. In some areas we have had help from VTAE. We've had cooperation from our department. We've worked together with local districts to see if we can offer other districts something; fine. We're going to make the exception at the state level as far as State aid. It used to be that you couldn't do that....you'd get State aid into the district, we can't make any adjustments....we're willing to make adjustments. There are districts, the one I come from, for example, that have opened their doors in electronics, I believe, and in auto mechanics to a neighboring district. Students are bussed over there....it takes about ten minutes by bus to bring the students in for a couple of hours and we were able to help. In other words, we must look beyond our own geography and learn to share. This is part of the broad based system. I would say it is difficult to comprehend that, right now, because the differences and the disparities are so great. There are systems that have geared up and have done a terrific job preparing people for the world of work and giving them the kind of introductory experiences that the high schools ought to give. Some have done nothing. Some have done a poor job, for instance within the metro areas. There are districts that have felt that all kids ought to go to college. They have felt that all children are college bound or university bound--that 95% of our kids go on to universities and colleges. Then we find out that half of them, maybe 60% actually complete. We end up with 40% of our graduating population going into the world of work without any kind of contact at all with the world of work. They haven't even been taught a handful of skills, let alone learned

anything about the business affairs, attitudes, or appreciations that are so vital to the future growth and success of the individual. I guess that we've failed in several areas. We're trying to encourage people to stop looking selfishly at their own area. We want them to become aware that, "We are going to be islands." I don't think people can live that way. Sharing is one of the things that, these days, is not being accomplished; and there are some things that one system cannot offer because of its size--size limits. But, maybe they could share what they have with two or three districts. If they did that, they could probably offer this needed service. And so, that would be another way we'd have to encourage people to join hands for the best interests of the boys and girls.

Q: I'd like to hear a word about the situation going on with the technical schools; that they're involved in building programs; that they might consider the needs of our sixteen and seventeen-year olds. If they started up a program for twenty people, like an advanced placement program, they might consider or try to determine how many high school kids, sixteen and seventeen-year-olds, would want to come up here for that program.

A: That's the very thing that we've been really talking about. We were at a couple of different conferences of late, one specifically set up for the guidance counseling area, and we were talking specifically about articulation, and I'm sure we will get to that later in the question and answer session. I think we're getting into some areas now where we're getting that kind of close articulation. We're setting up family programs and doing the necessary research to find out whether or not we're concentrating people in the right areas, and whether we need programs that will mesh with advanced placement. If we can get advanced placement at the university and colleges in some of the very nebulous fields, you can see what we're talking about. We ought to have advanced placement opportunities in the vocational and technical schools. I think we're getting that kind of cooperation. The cooperation is there, we have to nourish it. I think that we should nourish it at the local level and do so knowingly. As to the state agencies, that's a very vital area. I don't think we can operate in isolation. The high schools can organize their programs, and sometimes we can be off-base unless we talk to the people who are running the institutions of higher learning. We need this desperately.

Q: Is there any articulation with administrators? It seems that in our own area they seem to operate on the basis of personal biases. Either they're in favor of, or not in favor, like not in favor of career education-type programs. They're back in their own original thinking habits without too much current guidance, like: "back when I was in school" type of thing. What kind of articulation is being made between administrators and program involvements so administrators can understand what you're doing?

A: Oh, you hit a very important point. That is, it's certain that leadership has much to do with the success of the programs. We would hope that the efforts of this committee would be well-known and that it would give us all the strength of the department to get the material out to those people, those administrators, to keep them advised. That's what we ought to be doing in the public schools. We will give that kind of impulse that we will be of assistance, whether it's in writing that goes out to the districts (that will be forthcoming) or whether it means personal contact. We can follow up on that as well. The Department will be more than willing to give all necessary assistance to the local level. (I would support that as well.)

HEALTH OCCUPATIONS
 "BUILDING THE CAREER LADDER CONCEPT
 INTO HEALTH TRAINING PROGRAMS"
 MAY 16, 1974

Eugene Lehrmann

When I accepted the invitation to come and speak to this group, I expected to find a group of people from Wisconsin, educators who are interested in exploring what could be done in secondary education, particularly in health occupations, but I didn't expect to find in the audience such august people as Helen Powers, Elmer Schick, and the representatives from other federal agencies who are very knowledgeable in the area of health occupations. I want you to understand that you have some fine people who will be serving with you on a consultant basis as you go through this activity during the next couple of days. I guess I can do pretty much what Dr. Stevens did, and that's to give you an overview of some of the things that I see in vocational education in the State of Wisconsin, and then take some time to try and answer a few of your questions, because, really when it gets down to health occupations per se, you have the experts here. These people really know something about it. They are the people on whom we have called both on occasions when we wanted to develop programs at the post-high school level, and when we needed consultation from the U. S. Office of Education; so we are familiar with what they bring to you. My address here this morning, very briefly, will be in general terms in hopes that we can tie together some of the things that Dr. Stevens introduced to you. In fact, this tying together is needed if we're really going to be effective and if the citizens are going to be satisfied with what we're doing for them in the field of vocational education here in the State of Wisconsin. As you probably have observed on many occasions, we're different in this state in the sense that we have a separate system of vocational, technical and adult education, which addresses itself primarily to the problems at the post-secondary level. However, as far as federal resources are concerned, it is responsible for the allocation of all federal dollars in the State of Wisconsin. In the process of doing so, the State Board familiarize itself with the activities that go on at the high school level and have in the past. I believe I have a fairly good understanding of the efforts that are made in the secondary schools in the State of Wisconsin to deliver vocational education. I feel that, while we have been moving along satisfactorily, perhaps we haven't been moving as rapidly as we would like or as we should be moving. Perhaps one of the areas that has lagged has been in the field of health occupations. And, as I'm sure you heard earlier this morning, the need for developing an educational program in this area in the State at least, creating an awareness for this need in elementary and secondary education, is vital and very important. I guess there's an interest, all right, in health occupations programs. I jokingly said that Dr. Stevens and Dr. Thompson, and myself, and others in our positions of responsibility spend a great deal of time responding to things that come up almost on an emergency basis. For example, one of my telephone calls this morning was from Representative Byers up at Clintonville. He said; "Mr. Lehrman, I want an answer to a question." He immediately followed that by saying, "I have

a letter from a young lady," and I said, "Let me interrupt you. She wants to get into a practical nursing program." He said, "Yeah, how did you know?" And I said, "Because I get those telephone calls from legislators every day; and if they don't get the appropriate answer from their legislator, the next thing is that they write to their Congressman and he sends a special order through immediately, and he wants to know not today, but he wanted to know yesterday why Susie Smith, who's a constituent of his, isn't in that practical nursing program in Appleton; and he wants me to explain the process we go through in admitting students into the practical nursing program." And when I answered the question this morning to Representative Byers--that we had in one school 48 openings and 250 applicants to get into that program, I asked if he might suggest how we were going to deal with that situation. His response to me was: "Well, I'll leave that up to you, but you have to have a better answer for me when I answer my constituent."

These are really the kinds of problems; so when you talk about visibility of the health occupations program, I'm one who believes that we overrespond in our education system, and we overrespond in a good many of the things we do. I think right now we're in a mood where we're overresponding in terms of people desiring to get into health occupations. And I can simply say that that probably results from the fact that people heard the word that that's the place to get a job. All they need to do is get into health occupations and you'll have no trouble finding employment. And people respond. And I don't know whether there's really that deep-seated interest, or not. But I do know that they're thinking that at the end of a year or six months, or two years, a job will be waiting at the end of the line. And somehow we've got that message across. Things that six years ago were high on the priority list now are suffering from depressed enrollments in our post-high school VTAE system. In electronics, you know we're just kind of going along on a pretty even keel, but losing a little bit of ground as we go along. And a lot of other programs that were popular six or eight years ago are dwindling in enrollments, and in some cases we're talking about phasing them out of existence. In a period of five or six years, from the time they started to the present, the demand on the part of students and the placement has become such that we're talking about phasing these programs out. This is the kind of society in which we live. And I think people working in the health occupations field should keep this in mind as you plan for the future. Be constructive in your planning. Know what the needs really are and where they exist. Helen Powers will tell you that we know here in Wisconsin that there's a need that really exists out here in these rural areas. Our delivery system is at almost zero, really. In fact, it isn't quite that bad, but it's pretty bad. And we in education are doing nothing, in effect, to help it.

Now there are some external forces that come to bear on us as we plan and think about what we ought to be doing. But the fact remains that there isn't much sense in telling a young girl in the Northern part of the State or in the Southwestern corner of our State, at this point in time, that if she'd like to stay in the health occupations field, be educated and remain there--in advising her that she has a good opportunity because it doesn't exist. There aren't any programs there. We're still a ways off from the point where we even have any approved. And, it's not because education isn't interested in doing it, but because of external forces.

What are some of these external forces that you people ought to be thinking about, and how do they expand? How do they reflect upon the challenges that the State Vocational Board is faced with? I'll tell you what the state legislature said to us in 1965. They said the reason we were going to have a system of vocational education, post-high school vocational education in the State of Wisconsin, was to broaden educational opportunities for the youth and adults of Wisconsin. They said, the State Board shall establish a program of instruction and institutions throughout this State, which will equip all of this State's people to find their place in the competitive labor market.

So that's the charge that vocational education was given; to provide a delivery system to do this job. And who were we supposed to do the job for? Well, the State Board took a look at this and decided that they would examine the kind of population that they thought ought to be served as a result of this challenge from the legislature. And they said that the first group that ought to be served are those people who are out of high school for one reason or another, whether they had graduated or not. Secondly, we ought to serve employed workers who need training and re-training, so that they can achieve some stability in employment, in business, industry or agriculture, or wherever it would be. We should work with the employment service and employer people, so they can acquire new and needed skills as job opportunities change. We should examine the areas where people are underemployed, so that we can prepare them with new skills because of the changes that are taking place in our evolving technology. And we should also take a look at serving unemployed persons who need specialized kinds of training. Dipping down into this area which we call the disadvantaged and the handicapped, we are really trying to serve them adequately. Well, the State Board then said: We ought to concern ourselves with people who are earning less than what is normally considered poverty income. We ought to be working with people who are on public and private assistance programs. We ought to be working with people who are planning to retire. We ought to be working with people who are about to establish homes and want to learn homemaking skills. We ought to be working with people who are on social welfare and who need special kinds of training. We ought to work with business and industrial people, those particularly who are in small businesses, the semi-skilled and the unskilled. Well, I won't go on any further, but you begin to see that this is a broad population that we're talking about serving.

Now, while on one hand we talk about serving such a broad population, we also talk about other forces that exist in the world of work. For example, in preparation of health occupations activity programs in the State, people say to me, "Why don't you just start more programs?" That's not an uncommon question for a Congressman or State Senator to ask me. You say, so what, you have 240 people, open up more sections. "Find those people," he said, "I know we need nurses in our part of the State." That's one of the responses you get; and then of course I try to say that we try and prepare people for the world of work and, consequently, we have to match the number of people we train with the jobs available, and his answer is, as Dr. Stevens pointed out: "Who are you, God, making decisions for my children, for my constituents? It's your job simply to open up enough sections so that all the people who are interested in these programs can find enrollment." Allright, that's one side of the coin. The other side of the coin is,

obviously, from the people who are already employed in the field, they obviously are interested in limiting the number of people who are available for employment. I guess this is a natural thing. You can look anywhere you want, you find this kind of resistance whether it's the lawyers, or the doctors, or the dentists; whether, you know, people refer to the labor unions, but I have to say the labor unions are not much different from any other group except the teachers. Teachers haven't learned yet, apparently, that if you have too many teachers and you go on strike they'll hire people who are hungry and looking for a job and you might be without a job. The fact remains that these are all hurdles over which we have to climb. Some of you may have seen the ad that recently appeared in a newspaper out in California from I think it was a three-county labor union, Kern County was one of them as I recall, that said, you know, we have to cut out vocational education in the high school level. You know why? Because they're talking about some program that you call co-op education and it's taking jobs away from our workers. And we're not going to stand still and hold still for it. And they say it's exploitation of people. And they say, we've got to change this and the schools have to get back to the original principal of teaching basic reading, writing, and arithmetic. This is the labor union talking, the labor movement. I'm not so sure that you won't hear this from George Meany very shortly as a proposal. If you listen very carefully, as you hear labor people speak in Wisconsin, you're starting to hear that same thing. I get the question: "What do you think you're doing, Gene, putting people out of jobs? Who do you think you are putting our people out of work? I heard you had a program up in the northern part of the state where they were doing such-and-such--that's putting people out of a job. You keep your people back in the schoolroom where they belong." This is the kind of thing we're hearing. Now just let me add that the area of health occupations is not immune from this kind of a situation. You have all kinds of hurdles over which everyone must climb in order to develop programs and to try and satisfy the needs of people, interested young people, in getting into an educational program. Now I'm not saying all of this is bad. I think there is much good that can come from it. To be honest with you, I don't mean to say in any sense of the word that we ought to throw out the criteria for sound training in an educational program, or in health occupations or whatever it may be. But I think that somewhere there has to be a happy medium so that young people can find their place in the world of work. Well, we're faced with a very critical situation as you people here do your planning for the future because, while it's not written anywhere, I think basically that people feel that the schools' education is part of employment up to twenty years of age. And if not part, they may feel it's the whole role to keep people out of the employment picture until twenty years of age. No one says that, but I'm not sure that isn't part of the basic economic practice. Those hiring in many companies, while it's forbidden, steer clear of hiring anyone who is under twenty years of age. You may not like it, but this is a policy of many companies--indirectly, but somehow they're able to accomplish it for many reasons and I guess all of us may have contributed to what's happening. But, I'm saying that it creates a problem for us in education because we're faced, then, with some decisions that make it much more difficult to deliver the kinds of services that we feel are necessary in a total educational program. Well, so much for that in terms of some of the problems we're faced with.

How do we, in Wisconsin, address ourselves to the problem of meeting occupational needs in our State? Well, first of all, we in vocational education and the Department of Public Instruction very strongly support the career education concept. We're working cooperatively at trying to develop a plan that will really do what is intended: to be a career education activity so that young people can move all the way through from the elementary years on through adulthood and have career opportunities available to them all the way along. While we certainly haven't moved as far and as fast as I would like to see us move, we're working on it; and I think that we are making satisfactory progress. If we're going to accomplish these objectives, then I think we also need some other things that must happen in our system. One of them is starting here today. In these next few days, you're going to examine what can happen in an occupational area in terms of preparing people for the world of work. What kind of contribution will secondary education make? And what kind of curriculum planning should we be doing so that it will start at the secondary level and go right on into our post-secondary programs--be it at the university level or at the vocational-technical level. Whatever the case may be, we ought to have some kind of an articulated program so that students and the institutions will know who's doing what and for whom. And I guess that takes some doing on the part of all of us. I heard some of you ask some questions of Dr. Stevens: what's happening? Why don't certain things happen at the local level? I think we do have to have a plan, a game plan if you will, which will point out exactly what will be happening as far as students are concerned. Certainly, we at the post-high school level will and are making a strong effort to make certain that students aren't repeating what they took in a high school program--if it's a skill we're talking about or an academic achievement, we ought to find ways and means of measuring where those students are and move them from that point until they complete the program and earn a diploma or associate degree or whatever it might be. We're very much concerned. The biggest step in this direction though, is appropriate articulation, with a well-designed plan so that everyone knows what's happening. And that's why I say this is a step in the right direction.

In this very room, about a year ago, we started programs such as these in home economics, and they have worked out, in home economics, in the food service field. They have worked out an excellent plan which points out the kind of activities that will be carried on by the two systems, by the secondary system and the post-secondary system. I guess what I'm saying here is that we're going to have to do it in the health field and other fields if we're really going to function effectively.

There's plenty of opportunity for young people to grow in our system. And I'm speaking here of the post-high school level in particular. We are concerned about those individuals who are interested in moving along more rapidly than our standard curriculum permits them to move along. So a great deal of work is being done on individualized instruction which permits the student to move along more rapidly than he would in a regular classroom setting. This usually is designed to work with the highly motivated student. But we're planning to involve more and more

students in this kind of activity. As we do so we are going to speed up what students will be able to accomplish in a given period of time. Eventually, we will have more people ready for the world of work in a shorter time than we have had in the past.

You have asked me to make some comments about the concept of career ladders. Let me explain that I believe that this is a very important aspect of our total educational program. This isn't something that will happen by accident. It's something that has to happen through proper planning. So if we're going to develop a career ladder, work done at the secondary level should lay the groundwork for the next step in this career ladder, be it at the vocational-technical level or at the university level. If we're going to start at the vocational-technical level, then a student enrolling in a particular program would be able to make some application for another level of education. Let me explain, just very quickly, that at the post-high school level, I'm sure you're all aware that we have several levels, challenges that students may meet. There are some very short-term activities in which students may spend six weeks of training and go out and find employment with very limited skills in the world of work. In addition to that, we have programs that run over a semester or a year that are primarily designed to develop a basic skill. Now, once we get into this kind of activity, we expect that every student will take some related academic activity. We don't expect that the student is necessarily going to have to meet some prescribed standard in that academic program in order to get a diploma from that particular activity. Say we have a year's program that teaches the basic welding skills and prepares a student for the world of work. Very often we get students that academically have had a real difficult time throughout their whole school life who finally find out now that they want to learn a skill, and they want to work, and as soon as they start in the welding program they discover that maybe they can run a bead, but then they're supposed to read the instructions as to what kind of welding rod they're supposed to use and supposed to read some instructions that some supervisor wrote down on the back of an envelope. Now they're supposed to make some interpretations and they didn't know there was any difference between a quarter of an inch and four inches. Whether that was four inches or something else, they didn't know. Thus they developed a feel for some academic support. We include this as part of the curriculum and expect each student to take this related educational program in addition to learning the basic skill of welding. But, as I said to you, if that student really learns how to weld, he'll get a diploma at the end of a given period of time to attest to the fact that he has certain skills that he can use as a welder on the job. This, then, is one level of training that we have in our program.

We still have another level in our post-high school program that we call an associate degree program in which we have standards established in the academic program. We say, if you don't earn a C in communications skills, even if you have an A in mechanical drafting, you won't earn an associate degree until you complete communications skills. You're going to have to have 64 credits at the post-high school level and there are prescribed standards you have to meet, in these courses, before you will get an associate degree. And so this is still another level of educational training that we have at the post-high school level. So students can, then, move along through this educational program if they so desire. We insist that, in

each of these areas, planning should go on so that students can take the skills that they learned; if they're students, for example, in welding; to move on to a more sophisticated program. Let's say we have a welding technology program where he doesn't start over, learning the basic skills of welding, simply because he changed programs--that he takes all of those skills with him and he gets advanced placement, and moves on through the program in a much shorter period of time. It's this kind of effort that we're planning at the post-high school level here in our State. Now, we need further articulation with the university because we think a student who learns these skills at the post-high school level ought to be able to transfer them to the university level and be able to proceed from there in getting a baccalaureate degree if the individual so desires. So, we think that these things are beginning to move in the right direction and we hope that, as we move into the future, we'll be able to solve some of the problems and get over some of the hurdles that presently exist in our educational system. Some of these I'm sure we impose, and some are imposed upon us from the outside.

Let me just take one quick look at some of the things that we have been saying in Wisconsin in our relation with the Department of Public Instruction. I think there's general agreement between administrations of both our departments that students often have the opportunity to learn or to get a salable skill at the high school level. I don't think there's any question about that. We talked about that and you can put your own definition on it, but a student ought to be able to get a salable skill at the high school level. We think that there should be a delivery system in Wisconsin that would permit this to happen. I guess that gets into the question, what should that delivery system be? Far be it from me to dictate to anyone else what that delivery system ought to be, but there certainly are some things that stand in the way of having it happen as effectively as it probably could.

The previous administration in the Department of Public Instruction felt that we should be moving very strongly in the direction of comprehensive high schools, where there would be an adequate support system in our high schools to provide vocational training to students. Now I guess most of you know that isn't always the case because we have many high schools that are too small to provide a comprehensive program. We face the fact that some other mechanism has to be developed that will take care of providing this activity for our students, primarily, a vocational educational activity which will permit students to get a salable skill. Of course, woven in with all of this is financing. As we get to the smaller units, and Dr. Stevens said, I guess, to the very large units, we begin running into the problem of how do we finance this educational program, and we start getting to the question that was raised here by one of your participants on dealing with why administrators act the way they do, occasionally, when they talk about such a program as this. And I think very often they are reflecting the kinds of things they hear from their district boards. Because when somebody says we ought to put in vocational education courses, and then the district member says how much is it going to cost....it costs just about twice as much as it does to put on an English course and the board member throws his hands up and says you better look for something else, Mr. Administrator, or you won't be here very long. It's this kind of pressure--now I must admit that a good many administrators in our State have nothing but an academic background and it's hard for them to understand that learning of a skill is a function of the educational system--they're just not ready and willing to accept this. As long as they have that kind of attitude,

why, I must admit, it is extremely difficult to get this message across. Superintendent Kahl and I made a swing around the State and visited and invited every school district administrator to meet with us for a half day about two years ago. We went to every corner of the State. I would say we spent almost ten days meeting school administrators. This was the kind of feedback we received from them: "Yes, we're interested...but." Then, if you'd ask the question, "Is it more important to have foreign languages in the school than it is that you have a vocational class?", the answer would be, "Yes, but I get more pressure to have the foreign language." Then the next question that logically follows is, "Pressure from whom?" The answer is, "From the articulate people in the community...the power structure." They respond to the power structure. Does he ever get very much of a demand for a vocational class? No, not very often, unless fellows like you come out and stir things up. The CESA group hires a coordinator that's interested in vocational education or we happen to get an agriculture teacher who says: "Hey, there's a lot to be done outside of teaching just agriculture in this area. There are some students who would really like to go to the city, and there are some girls that would like to learn typing." This is the kind of response you get. It takes a great deal of effort on the part of all of us to acquaint the citizenry of our State, and this is the point that I want to make--it is not necessarily that school administrator that we're talking about. We're talking about the citizens of this State and the lack of understanding on the part of a good many of them about what this educational program is all about. This activity, it's this understanding we have to work on because we're trying to work with and serve a group that is not very articulate. I served on an advisory council, when I was in Kenosha, to the Public School Board, dealing with curriculum adjustments and curriculum restructure and we held hearings for the community. We had citizens come in. Nobody showed up to talk about vocational education. But, higher math... oh boy!--we learned more about teaching advanced mathematics in the high school and advanced chemistry. When you examined it, we found out that in some of those courses there were only four people. But, every important citizen showed up to tell us that we ought to have these courses. We ought to be recommending an advanced chemistry class in schools. Then, we found out through further discussion that even the University hadn't accepted this as one of the write offs, one of the trade offs when a student enrolled in chemistry at the University level. It indicated more and more that we should have been taking a look at something else. Well, I'm just saying to you that we serve all of the students in the State. You at the secondary level are responsible for all of the students that come to you. We are given the charge to deal with students that are out of school and need the services of an educational institution. And, somehow, we have to acquaint the citizens of this State with the need that exists in the preparation of people in the health occupations field. I guess that is what you're going to be talking about for the next couple of days. While I have talked in generalities here this morning, I hope that you can make application of what I said to your planning here for your health occupations program. Thank you very much.

QUESTIONS ADDRESSED TO
EUGENE LEHRMANN AND JOSEPH KADISH

Q: Someone mentioned that sociological problems that exist in terms of labor markets--and this ties in with a question that I wanted to ask Dr. Kadish. This deals with something that I am fast approaching and that's the question of retirement and old age. You didn't seem to mention, other than the problem of colostomies, the growing health area that I think there is in terms of geriatrics care and food services for old agers. Isn't this also one that we might include?

KADISH: Well the issue that always comes up is not how much manpower or what kind of services we need. When we listen to authorities in the health care field that tell you what kinds of things we need, it's a gigantic scope of concern. We could use probably three times as many people and three times as much of our national resources in health care, if we wanted to have optimum care. If we had the kinds of rehabilitation programs, say, for elderly people, people who are in mental hospitals, people in institutions or people who are otherwise handicapped, there's no limit! Then we get back to the sociological point and the political point of who is going to pay for it. Is it going to come out of the tax structure? Are people willing to be taxed for these things? These are the gives and takes that have to determine social policy. Frankly, we really don't have the kind of forward-look or social policy planning that we need. Nor have we put the value on some of these characteristics of health, that some people now have, while others say: "Can we afford it?" It is really a sociological question. How much of our gross national product do we want to put into health care? If we agreed to increase that three times, we would need many more people. We're not too sure that is the case. Now in the case of National Health Insurance, the amount of money that the administration says the Kennedy Bill would cost would be \$84 billion a year. Of course, the administration's bill would cost considerably less than the Kennedy people say. That is, there are a lot of costs that would go on just the same, only it wouldn't come out of the tax structure. But it is a gigantic industry. If everyone in this country would say, "We would be glad to have our taxes doubled," we could have all of these things. But, we don't have that kind of social ferment at this particular point. We're going to have to reach a critical point, a crisis point, where we do something. But, we are having some of these in smaller steps. We're going to have some kind of national health insurance which will take more money out of employers' and our pockets. It will be an insurance plan where the risk will be evenly distributed and hopefully we will have a better system of organization so that it won't cost so much. But, that is fundamentally the question.

Q: You're talking about institutional, bureaucratic types or arrangements.
KADISH: Not necessarily. I'm not restricting it to that....

Q: I guess I have some very specific bias because I am concerned with a father who is 90 years old and trying to make it on his own. I see all kinds of areas of individualized care that he would be willing to pay for if he could find it. In fact, the problem is he lives in rural Wisconsin. If he lived in an urban area he could get care through an institution.

But, in a rural area...he is perfectly willing to pay for it, but it is impossible to find. If we could train people along these areas....

KADISH: There is a great concern about not so much the shortage of people to deliver the services that are now demanded, but the question is how we're distributing them. There's a lot of waste in current manpower, too. We have highly trained people doing relatively minor tasks, so we're not using them effectively and we're not distributing them properly. There are some efforts going on there, but again we have the same old excuses. We hope we'll have answers in a few years.

THOMPTON: I'd like to point out, too, that I think that we in vocational education are selling ourselves short sometimes when we think that our only product is a person who is trained in a specific field who can find a job in a specific field in which he is trained. For example, we train a certain number of students in metals occupations...incidentally, we're having a pretty good opportunity there in our district...and little opposition to it...however, suppose that the young person at the conclusion of his senior year discovers that a metals occupation is not for him. I do not feel that because he has made this choice and spent maybe two or three years of his high school life concentrating in this one area, that it is a waste. As a matter of fact, I think that he has really gone through a discipline and training which will equip him for a variety of areas. Because the competency to look at and competency based curriculum and the competencies that he has gained, he is a good mechanic in the metals area, stands him in good stead in a variety of fields. And with some additional training, be it at our local vocational school or at some other place, he will be in a good position to change areas of concentration.

BOSS: That is all good and well, but it doesn't pay off in the categorical funding of education. This is the way we've gotten federal funds for years--through specific categories. And job placement is the proof of the pudding in vocational education.

THOMPTON: Well I think this is something that a number of us have felt is completely wrong because...

BOSS: You don't have to have it. You don't have to take the vocational money. You can go ahead and find other sources of funds to train people for non-categorical classes, you see. These are the debates we have had over the years.

MEHLS: Don't we have right now this hour glass with the bottleneck right in the middle on the prep school. Gene, I think we have to recognize that. You know more than I do on this thing because congressmen have been harassing you. I've only had one or two talk to me about it and I didn't have an answer. But, we have this bottleneck here and I want to talk about placement. Then we get back to a statement by Dr. Kadish saying that our surveys are lacking and this is true. But, I feel that if we're going to conduct valid surveys we're going to have to do it every three months and this is a physical and financial impossibility.

I have a gal right now who wants to go into inhalation therapy so bad that she can taste it. She is frustrated, and she is bitter. She is in the top 10 % of her class. We're going out of state right now to try and find some of these sights. Now, there is an inhalation therapist who is on the job and all of a sudden she has become an expectant mother. And she's going to leave that field in another four or five months.

I want to bring in another thing. This concept of shared services which is really gathering momentum...we've got some job opportunities here that I don't think are even listed right now. In talking to some of the hospital administrators in our area, we have an 11 hospital shared services plan. Some of these jobs are just being defined. Probably they'll release them July 1 or September or so and try to find a person to put in them. So, I don't think that we know what jobs are available at the other end of this. Then trying to alleviate this I come back to Mr. Lehrman and ask this: are we considering any satellite programs apart from your population clusters? You say, well I just mentioned eight or nine of them and then two more....Let me ask, are we considering any class three hospitals with 100-150 beds which might be a logical setting for an inhalation therapy program in a city the size of 8,000-10,000. Can we have a satellite program there specifically in inhalation therapy which has to have a small student/teacher ratio, say possibly 12 or 14 or 16:1? Maybe you would have to have two or three instructors, but no more than 20, who'd be able to do a couple more things. Have people approached you on this?

LEHRMAN: Yes, we look at all these different approaches. There is nothing sacred about anything happening at a specific point...

MEHLS: Realizing the fact that there are several things to be considered here and that you have a place to train these people...

LEHRMAN: I guess that in a good many of the examples we come right back to placement. How many of these can we establish in the State of Wisconsin and still expect to have satisfactory placement?

MEHLS: The number I got approximately October 1 last year was about a 12 or 14 to 1 placement. This one program was turning out 16 a year.

BOSS: To support what you're saying, I wanted to know personally what the particular situation was in Wisconsin. So, I called the State nursing licensing people in Wisconsin and found out that there were 870 registered nurses who transferred here and took jobs. Jobs which I would like to think are Wisconsin jobs for Wisconsin kids. Where these people are getting their training, I don't know, but they are moving into this state and taking jobs. In the licensed practical nurse field there were 305 who came from out of state and who were licensed in this State to practice in just this past year. Now I know that somebody is going somewhere to get training to come back here and get a job. Or they are Illinois residents, or from Iowa or somewhere, and are moving here to take the jobs. So I know there are jobs. I think we need some research, definitive research, that would point out this kind of thing. Who are taking the jobs that rightfully belong to Wisconsin residents?

THOMPTO: Right along with this then there is a lot of mobility among trained people.

BOSS: The more training you get, the more mobile you become.

THOMPTO: This is what we were saying earlier. Looking at manpower needs then, you'd be able to make some kind of better projection of what the needs are in terms of manpower. Our problem is that in local areas, there is a lack of desire on the part of health providers, to go out and make a survey and to make a commitment, saying: we need this many people in the next ten years. But, nationally it is easier to get a handle on how many will be needed because they aren't committing themselves to a specific institution

in projecting how many people they are going to be needing. As long as there is this mobility, it seems to me that we can make better projections as to the number of people to be trained in various areas.

BOSS: Hopefully we're going to get better data from HEW soon.

KADISH: On the question of where programs ought to be...the mobility as you indicated, the lower the educational level for the particular occupation the lesser the mobility. But, there are some programs designed to provide the training in certain centers, but with satellite training beyond those centers in more rural areas. There are a number of experiments going along on this, such as what is called Area Health Education Centers. I don't know whether there are any in Wisconsin or not. There are two programs. One funded by the bureau I work in and some of them funded by regional medical programs. The basic concept of area health education centers is that certain well qualified teaching centers, particularly where there are medical schools, provide the best kind of environment to provide the training. However, if they utilize some of the community hospitals and had a linkage with these better training centers, some of the training, particularly the clinical aspects, practicum, could take place in some of the rural centers under the supervision and standards set by the medical centers. Some of that activity is going on and that may be one concept to consider in getting people from rural areas to come into the centers and to go back to the rural areas for practical training in the rural or less populated areas. You would then have more people in the areas of need. That is the concept that is being worked on. It's still experimental, we don't know where it is going to go. It's one way to try to meet the distribution problem.

QUESTIONS TO EUGENE LEHRMANN
ON "BUILDING THE CAREER LADDER CONCEPT INTO
HEALTH TRAINING PROGRAMS"

BLINKMAN: Do you expect that there will be a secondary, post-secondary articulation in the health careers program?

LEHRMANN: I expect so, yes.

BLINKMAN: The reason I'm asking this is that in one district they are drawing from a hat realizing your problem of large numbers. There is no prescription. Do you expect that this will change?

LEHRMANN: No, I don't expect it to change for a long time. The reason it won't change is because we're going to continue to have such large numbers of people coming in seeking health occupations at the post high school level. Drawing from the hat is a mechanism....let me explain what happens....I'm familiar with it....I answer this question every day. This is what happens. The Madison Area Technical College has an associate degree program in nursing. All right, they have established, let us say, November 1 as the date on which they will accept applicants for that program. They started out on a first come, first served basis. Well, they have 240 applicants...the first day! 240 of them! And, in addition to that 240 applicants, of course, they have only 48 openings. Now they're faced with the problem of what to do. The first thing they do is go through a screening process. I think it's a very legitimate one. Read the high school records of the student, do an evaluation with health occupations people and the guidance people working cooperatively....it's not a one way street to try and keep people out. Maybe they screen out 100 people. They still have 140. For all practical purposes, those 140 all qualify....all should be accepted into the program. So the district says, "Where do we go from here?" Some of our districts would say, "Aha, we have the answer; we will only take the people from our district." And that'll throw out another fifty....now we're getting down to a reasonable limit in this thing. But, that's not fair and the State Board won't allow them to do that because the State Board says, "We have said to another district you can't have such a program." At this point, we only have five associate degree nursing programs. So we've said you have to accept them from all over the State. We're still back at 140 people for 48 applications. So far the best our districts have been able to come up with is to draw from a hat. As long as we have that many interested people, I guess that is the only solution. It's a tragic thing to tell....a call I had this morning....the man said this girl was on the list last year and didn't make it, she came back and reregistered and didn't make it again this year. Now what do you do? These are hard questions to answer.

Q: What is the drop-out rate of the students that are entered into that program and what is the completion rate? I don't expect you to answer it because I expect that everyone in this room ought to know that the drop-out rate and the completion rate in the two-year program is something of....may I call it a disgrace? The selection methods are valid based on accepted research techniques. Still, they do not do the job of picking the people who are truly interested, who will stay in the program, and who will enter the profession. They pick some

but programs that pick by guess and by gosh seem to have almost as good luck in the numbers that they complete and put into the field. What I am doing is saying to this group: Do you have an argument against the secondary school program or do you have an argument for it? Because, it may help improve the selection method.

LEHRMANN: I'd say my argument is for. The thing I was saying was that if you have an honest to goodness career awareness program, the students that make application whose interest drops off after a while....and by the way ours is not that disgraceful--I was going to say that we have 90% success....I wouldn't be a bit surprised to find it very high. I should have brought those school statistics along. I think you are right nationally, I wouldn't deny it. I do believe that career awareness will help us tremendously, but I still feel that because of the public feeling, the public feeling that here is a place where we're going to have far more trained people than we're going to be able to deal with. That's what I was responding to.

Q: I am on the advisory board of the Madison Area Technical College two year nursing program and it has a quite good retention rate, we think.

THOMPTON: One of the problems I see is that you are trying to equate the number of programs and the number of participants in the program with the potential placement possibilities. Now, isn't part of the problem, in terms of career awareness, the fact that maybe we are not showing the high school student the great variety of possibilities when we're talking about just nursing? When we get together with people who are talking about career education in terms of vocational education and in terms of health careers, we're always concentrating upon nursing. Earlier today we have heard about a great variety of para-professional people and other kinds of opportunities that exist in health occupations. It seems to me that this is part of our hang-up. So many of our youngsters see only nursing or assistant nursing as potential programs. Two questions then: Are we looking in the vocational area, the post secondary area, and expanding the variety of offerings available so that the youngster can say: "OK, I can't get into an RN program, but I can get into something paraprofessional emergency type of program." Isn't this a little bit different? In terms of our high school program, we can truly articulate these programs that we want to give our students, a broad variety with some in-depth look at careers, enough for entrance level in some. But get enough breadth so that they will be able to choose effectively for themselves and for society, in a sense, those areas that they might continue in at a post secondary level.

LEHRMANN: I don't know how many....I should have that information with me but....I hope one of our people will be here later on....But we, as you know, have quite a range of health occupations programs. Milwaukee must have about 15 choices in the health occupations field, Madison, probably 10 or 12. There are other areas that we are exploring. There is quite a list on my desk of new programs that our districts have identified. I'm fully in agreement with you that there should be more awareness in terms of these other areas that are open. I hasten to add, though, that in Milwaukee, where we have 15 choices, they are all filled up, and I think they all have waiting lists.

THOMPTON: Is that true that there are no other opportunities in the State or in our area for additional people to go into these fields, or is Milwaukee producing all of the potential employees that the health services delivery system can absorb?

LEHRMANN: You touch on a very sensitive area, because you know and I know that if people get their training, at least in our post secondary program, they are inclined to stay where they receive the training. In fact, our records show that 70% of the students were employed in the district in which they were trained. So, if we start a biomedical electronics program in Milwaukee and a student comes from Eau Claire and Superior, chances are that that student is going to stay in Milwaukee. There is only a 30% chance of his returning to his community. And then, if a student happens to come from Fennimore or Lancaster or Crandon, the chance of that person returning, I would guess, is almost zero. Who is going to employ a biomedical technician in Crandon, Wis., or even at the Minocqua Hospital? It just isn't going to happen. That's really one of our problems. Society is creating these monstrosities. We're pulling everything together in population centers; and this is what I was trying to tell you before when I said we're having great difficulty in trying to establish some of these health programs in the rural areas. If we say it can be done, then we have to get over the next hurdle and that is to find clinical facilities to train people. The State Board of Nurses have criteria that they have established that we have to meet. But, where are those facilities? In Wisconsin, they are in Madison, Milwaukee, LaCrosse, Wausau, Eau Claire, Green Bay, Appleton, Kenosha and Racine. When you get beyond that you're in trouble. Generally, that's what happens to us. Training certainly has to be in the population centers. Our argument was that you don't get people there unless you train them where they are. A good many of those people will stay there; they're housewives now or they are doing something else in that community. Thus, you create a cadre of trained people in metropolitan areas, but so far that doesn't seem to carry very much weight. We'll see what happens.

FRATT: I don't disagree with what you said in terms of a career education concept and career ladder, in terms of articulation between schools and so forth, but I am concerned that I think, maybe, what we have done this morning is to start to delineate areas of responsibility or to at least point out the need for delineation. You mentioned the fact that professional nursing always comes up when we talk about health occupations careers; and it does; and I think we need to delineate the fact that when we're talking about secondary health occupations careers, then we're not talking about professional RN nursing. But, in fact, we're dropping kids out of secondary schools at age 16-18; in fact I have 55% of my graduates each year who do not go on to either a college, a university, or a technical school. These people are being employed in our hospitals, our food service institutions, our nursing homes, and our meals on wheels programs and in all kinds of programs throughout the community. These are fields that we might say are or could be entry level. I think that this is what we need to do: to delineate and to differentiate the areas where we can help in terms of training vocationally for job orientation at the secondary level and keep our hands off of those areas that we already recognize as being at a professional level, except as we look at career orientation, I don't disagree with what you say, but I do disagree with the fact that you seem to imply that there is nothing that we can do in terms of vocational education.

LEHRMANN: No, I guess you didn't read my point when I said curriculum development would include exactly what you're talking about. That's what we did in the food services curriculum project. We have exactly what you're saying. We identified what those areas were: what were job entries which the high school could be providing. We defined the role that post high school

programs would play in the food services and also indicated what the university ought to be doing. So, I guess we aren't disagreeing with each other.

KADISH: It's easy to excuse the lack of reliable data on health care manpower needs. Who would actually be hired when they've completed certain programs? It's a poor excuse to say that we have very poor data and data collection in this State. I don't know if this is true of Wisconsin necessarily, but nationally, the data collected on present needs and projected needs are very poorly developed. That would be one of the goals of the National Health Policy and Planning Act that I mentioned earlier. That is in the hopper in Congress now. That doesn't help you right now, but it is hopeful, and I do know that the administration, particularly the unit that I work in, is concerned about a better form of data collection. So in the next few years there will be a way of estimating and predicting what kinds of people are needed: e.g., what occupations, in what settings, in what locations; but that's a little bit in the future. But, I think that Dr. Lehrmann did point out a very essential issue, and that is with regard to all labor. We're becoming a nation where we're able to produce more material things in a much more effective and efficient manner. This means that we're having a surplus of labor. And there has to be some socio-political changes that will use manpower more effectively: e.g., shorter work weeks, shorter this, etc., and then more people would find opportunity in these occupations. It is absolutely true that since 1967, or so, the numbers of allied health workers has increased three times. The number of programs training allied health workers has doubled. These present some broad sociological problems to which you all have to be attuned. These facts should go into your planning, and hopefully in the not too distant future, you will have at least the mechanism for planning the short range and the long range.

SAUNDERS: It occurred to me how closely related health occupations and agriculture are. They both deal with people and their needs. Ag has done a fantastic job through the years and could give real leadership for health occupations training at the high school level. The point is that in introducing concepts in the Ag field at the high school level and developing knowledge and skills at the high school level, in many instances, Agriculture has done a fantastic job over the years. Why can't we follow? Why can't we put some of their techniques to work at the high school level? How can we do it? We know we can, but how? And, how can we get advanced standing for our competencies when we finish the program? Why should we have to go into a post secondary program and be shown everything over again, even to learning how to make a bed? These are the things that irritate me; and I'm not talking about Wisconsin because it has been five years since I've been here and known what's been happening. But I don't think it has changed any more than most states have. Their program is established and it is not established on needed competencies nor competency already acquired.

LEHRMANN: Well, you wouldn't get any argument from me in terms of competency. I think that we obviously have to move very rapidly into that area and give students credit for what they know without regard to where they learned it. I would add that there are obviously certain things you couldn't say that way, but skills in a hospital, for example--I wouldn't want some girl to read it in a book and say that she is competent. Certainly, we do need more of that effort. When you talk about how you do this in terms of what vocational Ag does, remember Ag is really job training. The individual is living at home,

and working at home, and working is part of the setting. I guess that's the major difference I would see and there's where we have the conflict. As we become more structured, as we become more organized, you're going to have much more resistance to those kinds of programs in the hospital setting. We're going to have to go to more and more simulation whether we like it or not. I see that here. Because these groups are not going to hold still when, as the president of my State Board said, "Don't come and tell me you're going to train more carpenters at Fennimore when I have 80 people that don't have a job in Milwaukee." These are the kinds of things we're going to be faced with in the future. And it is going to be a challenge for us to try and work out ways and means of doing it. Now that doesn't say, though, as indicated here, that there shouldn't be entry level skills taught at the high school level. There should be.

CURRICULUM AND INSTRUCTIONAL MATERIALS IN HEALTH OCCUPATIONS

Wayne Hammerstrom

I represent a special project at the Center which is trying to assist in curriculum development and in the collection and dissemination of curriculum materials. About 1968, Dr. Harland Samson, with Distributive Education, started collecting materials to help vocational and technical instructors and administrators develop their curricula. When other vocational and technical areas requested assistance in their specific areas, the Center for Studies in Vocational and Technical Education at the University of Wisconsin-Madison decided to expand upon Dr. Samson's original project.

My area, "Other", includes two vocational areas: Trade and Industrial Education, and Health Occupations. Of course, I shall only speak to you about the Health Occupations area today.

Madison was selected as the choice for the Center because of its central location which makes it easily accessible. It is also a point from which materials may be distributed more effectively. It has access to resources and professional resource personnel. Thus, workshops like this one are possible. The Center has access to a new Teacher Education building in which we share an Instructional Materials Center, or IMC. The IMC will become the library from which we will handle and distribute our materials.

Specifically, the vocational curriculum resource unit exists to encourage and support curriculum development, to implement career development, and to collect and disseminate materials. These materials have been developed in Wisconsin as well as elsewhere in the nation. They may be used in various aspects of teaching, counseling, and administering of programs. The scope of the materials exists to assist school district personnel and to complement the efforts of various state educational agencies.

My role as a graduate assistant in the program is to locate and retrieve materials for use in the IMC. Basically this is a detective job. The various resource agencies have to be located, the resource persons in health occupations have to be contacted, and other existing curriculum centers have to be contacted to obtain their materials.

As relates to health occupations, an ERIC search was made to obtain a list of titles and journal articles in that area. Letters were then sent to the various professional associations for their assistance in obtaining materials. At first, our search was limited to softcover materials: pamphlets, flyers, factsheets and other free or inexpensive materials. Films and books were not selected because of their prohibitive cost. We hope to be able to eventually preview many of these more expensive materials and then make lists or bibliographies which then can be made available to the IMC users. We might cut down the users' detective work in this way.

I have displayed the materials which the Center has collected thus far and these will be available for you to look at during the workshop. In your black notebooks, in the clear tab section, you will find a bibliography of these materials. Our code system is only a preliminary one and will be revised later. Two descriptors are used to identify the materials, an ERIC descriptor and an Office of Education code number. A computer retrieval

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system will, hopefully, permit us to pull any materials you may request from our files. For instance, you might wish everything we have in Dental Assisting or in Secondary Health Occupations Education-General. We would then try to fill your request. However, we only have one or maybe two copies of each item. Therefore, not everyone will be able to use these materials at the same time. That's why we feel a bibliography list might be of greater help to you. The list inside your black notebook has the source from which we obtained the material and its cost. You need only contact that same source and deal directly with them. If you wish to look at the IMC materials for a short period of time, we would like to assist you by sending a copy of the desired publication. We will keep our bibliography up-to-date as much as possible. If you have materials you wish to contribute or titles you wish us to include, please suggest them to us so we may make them available to others.

The Center may be able to assist you in other ways. For instance, a school district might ask us to come to set up a workshop. We could assist in such things as curriculum development and curriculum materials acquisition. If you have any comments on this suggestion we would appreciate hearing them.

Also included in your notebooks is a reproduction of an Oregon program... a cluster model. They have organized their health occupations education curriculum on a task analysis basis. Tasks that are similar to various health fields are listed so that by instructing in these task areas you can teach many occupational skills required in different occupations. Rather than teaching specific occupations, you teach clusters of occupational skills.

A copy of a chart called, Health Careers in Wisconsin has been handed out to each of you. This lists the careers in health by the number of years of education or training required, the nature of the work, the entrance requirements, the type of degree or certificate received, and the address of the specific place to inquire about scholarships. This may help students who are considering various health occupations to get an overview of the opportunities available. The chart is available from the Wisconsin Hospital Association for a small fee.

I've also passed out to you two small booklets which further explain the Oregon cluster model. They look alike, but each is slightly different in the way in which it explains the nature of the Oregon program. Of special interest are the bibliography and occupational lists in the back sections. These reference sections may be helpful to you as you begin organizing your programs. If you intend using this model, you may wish to write to Oregon for further information. The address is listed on the cover sheet for your convenience.

After dinner, several films and filmstrips will be shown. There may be some of you who would like to preview these for future use. "Horizons Unlimited" is distributed by several sources including the film library of the Wisconsin Division of Health. "Before the Emergency" is distributed by the Employers Insurance of Wausau. Several commercial distributors will be here to display some of their materials and equipment this evening. You are invited to view their products, some of which might be useful to you and to your program planning.

At this time, you may wish to look through the materials which were brought out for your perusal from the Center. Margaret Strauss has some of her materials here for you to look at as well.

A PANEL PRESENTATION: NATIONWIDE
HEALTH OCCUPATION TRAINING AT THE
SECONDARY LEVEL
MAY 16, 1974

ELIZABETH MILLIKEN
HELEN POWERS
GLEE SAUNDERS

SAUNDERS: I just want to give you the same information I had to prepare for Congress on what the current status of health occupations is. The program for the associate degree nurse, occupational therapy assistant, radiological technician, health aides, and new and emerging health occupations have the highest percentage of increase in enrollment. A total of 336,652 students were enrolled in health occupations programs in 1972. Some of you may not know that the Office of Education data is never less than two years behind. It's not our fault. You people don't report it, that is, those of you from local and state levels. We have to wait until it comes in. Anyway, there was an increase in 1972 of 67,000 over 1971 enrollments. In the same year, 71-72 enrollments at the secondary level showed an increase of 37%, with the largest numbers being enrolled in the nursing aide, licensed practical nurse, dental assistant, medical lab assistant, and exploratory and new and emerging health occupations. Four states have established health occupations youth groups: Alabama, Indiana, Texas, New Jersey. Many others in the beginning stages are establishing these groups. The AMA has given support to further development of this activity. 1972 was the first year that data was available to show the enrollment of the target groups: the disadvantaged and the handicapped in health occupations. And I might say that it might be because we know more about people with special needs in the health field, but we've done very well--48,000 disadvantaged persons and 7,616 handicapped were enrolled in health occupations programs. The training of teachers for health occupations is not keeping pace. The number of teachers in pre-service did increase from 478 to 1,147 in a year, but the in-service dropped from 3,400 to 2,900 that same year. We are not maintaining the teacher education that we should be. I just want to show you that in the balance from 1969, 175,000 were enrolled in health occupations; and in 1972, 336,895 enrolled. That's pretty phenomenal growth. At the same time 69,466 enrolled in the secondary level in 1972. Let me just read what secondary programs enrollments were for dental assistants and dental hygienists at the associate degree level. Now this means that they were getting help at the secondary level. You know, some things that would relate. They were enrolled as dental hygienists and were getting some of their training at the secondary level. Dental lab technicians-506; medical lab assistants-1467; other medical lab technologies-366; associate degree nursing-313 secondary level; practical nursing-8042; nursing assistants-19,141; occupational therapists (secondary level)-119; physical therapists-219; radiological technology-244; and environmental health (undoubtedly these are the aide-level programs). The interesting thing is that it dropped--only 77 at the secondary level; mental health technology-96; inhalation therapy technology-987; medical assistant-1854; health aides-5705; and other, which is more or less exploratory or new and emerging-15,230. These are just secondary enrollments. An interesting thing, the number of males enrolled in health occupations has been increasing significantly. Something else for public school educators which I think you ought to know: The only data I had was for the LPN program. The move from hospitals and proprietary

institutions to the educational institution during the training is significant--83.6% of the graduates in LPN programs in 1971 had received their education in educational rather than service institutions. In 1972 the percentage was 84.2%. The principle source of financial support for these programs was public funds. Private funds only amounted to 11.8% in 1972. The trade, technical and vocational schools offered the majority of these programs. This is significant for public education. The funds are public and the programs are in educational institutions. This goes way back, I think it was 1959, to when that first AMA paper came out. More came out later about getting the programs into educational rather than service institutions. The major thing we have to think about is what is happening all around us. We are not educating in a vacuum. We are educating in a system that is changing rapidly and we are running just to keep in place. We're not getting ahead. But, I asked Dr. Kadish a little while ago to bring me up to date on something that's happening with Medicare/Medicaid legislation which is studying the need for competency, primarily for nursing home administrators. Dr. Kadish can tell you more about what's going on. Each state will have to have a system establishing the competency level for practitioners in federally financed health programs. There must be a competency level for the practitioners--all practitioners. And this is really a hot potato! But, it is something you need to be aware of. What are the competencies that will be needed if you're going to do career advising or guidance counseling? Also, what competencies can you produce in students, or can students attain at what levels in order to work in nursing homes and in other agencies? A question that has bothered me very much this morning...you people who are in the outlying districts, in the rural areas, you may not have qualified facilities for teaching. They don't measure up to the State Board requirements for laboratories, educational laboratories, but your patients are being served. Now, who is serving them? What competencies do the people have who are serving them? This is part of your problem. And how do they get these competencies? Could you give them higher competencies in your programs? Could you improve their functioning? I'm not going to fight the State regulations. I think that you people have a job on your hands to find out what is needed, how you get it and what it's all about.

MILLIKEN: Glee, you've raised some questions quite pertinent to what I want to talk about. Without your knowing what I was going to talk about I think you have led into it very nicely.

I understand that you're here for the purpose of planning content, outcome, strategy, or whatever, for an instructional program. So, that's what I'm going to talk about--planning an instructional program.

The place to start in planning any instructional program, whether it's health occupations or whether it's for something else, is with some questions that have to be answered. I am personally convinced that the reason we have so much trouble coming up with workable plans sometimes, most of the time in fact, is because we haven't really learned to ask the right questions. If you don't ask the right questions you don't get the right answers that help you to do the job you need to do. So I'm going to start with these two very broad questions that pertain to all instructional planning: what are the objectives? I'm sure you're tired of hearing about objectives. You can't go to a meeting without someone standing up and saying you ought to talk about objectives. Okay, so what? But until you have talked and discussed and cussed and whatever and put down in black and white: "our objec-

tives of the program are thus and so" ... until you get them in black and white where you can look at them, sleep on them, come back and reconsider them--rediscuss them, you're not really ready to move much farther. You can move farther, but you always have to keep coming back to the framework established by those objectives because that's what you do when you make those objectives explicit. You establish the framework within which the rest of your planning is going to take place. Without that framework you're likely to flounder. At least, you won't make as much progress because you might keep getting off target.

Once you get those objectives spelled out and agreed upon, and I would also throw in here that I don't necessarily believe that those objectives should come from the State Office. I don't believe a curriculum should come from the State Office so that the teacher is told "Okay, here it is, this is what you teach." It is like the military where time is of the essence, as it was during World War II when so many welders had to be trained in a minimum amount of time to get out there and put some ships together. That's a different situation. At that time somebody needed to develop that training plan that maximized efficiency. Where we are dealing with some broader objectives that involve the development of a human being to the highest possible level of that person's potential then I don't think a rigid plan is workable. If we try to use a rigid plan that somebody up in a big office, sitting at a big mahogany desk has developed (you know the arm chair approach to planning), then we don't get the kind of personalized program that is appropriate for the goals of the student. We don't get that relevant education which today's students are demanding.

Once we have spelled out what these objectives are to be and we can keep in mind that those are our ends, then we must try to find the procedures by which those objectives can be achieved. Tremendous amounts of research, man hours, dollars, what not, have gone into the effort over the last 20 to 40 years to find the means that is the most effective way of educating people. I would suggest to you that that has all gone down the drain--that the right question wasn't being asked. The question being asked was: what are the most effective procedures for teaching learners? When the question really is: Have we found the most effective means for teaching a learner, not all learners, but a learner.

Because we simply cannot ignore the fact that learning styles differ, perceptual modes differ, reactions to the educational situation differ, the effective teacher must deal with all of those factors, which is essentially saying, that an effective educational program needs to be a personalized one--personalized, not for the state or even for the teacher, but for the learner. Who becomes the focus of our planning once we have figured out the objectives and our framework? Then, we have to think about the learner.

Who is this learner for whom we have set up these broad objectives? In a high school program, that learner is going to be an adolescent. Not the kind of adolescent I was. Not the kind of adolescent you were, if you're over thirty, and, not the kind of adolescent you were if you're over twenty-four. The adolescents of today are a brand new breed such as mankind has never seen before. Not only are our educational laws out of date for this generation of learners; so are our labor laws. These kids have to have their wheels. I don't mean two, I mean four. They have to have their date money. You can't go to McDonald's these days with a date and get out for less than five dollars. So they need money, they need wheels, and the sharpest and the coolest in clothing. You parents have probably already found out: Don't try to buy clothes for your teenagers just hand them the money and they can go buy their

own. It's a different breed. They reject that which is provided by the over-the-hill group, that's you and me, unless they get to participate in the planning and get to make some of the decisions; and even then they like to have some options. I'm not saying that we should go overboard with this permissiveness business. I'm saying something completely different. I've said its involved in the planning. And, this again is part of personalizing. It's looking at the goals of the learner. It's looking at his particular style, his interests, what for him constitutes relevant education, and then trying to provide that for him. And if you don't do that, you're wasting your time. If you don't adapt it to the learners they're going to reject it anyway and they're going to tune you out. They're just going to invest a certain amount of time in your class. The beautiful objectives you have written out are not going to be achieved anyway. If you're going to make your effort worthwhile, if you're going to get any kind of payoff on your investment, you might as well try to make it pay off for the learner, too. So this learner that we are talking about, then, is the adolescent in the 70's faced with the uncertainties of the 80's and the 90's.

Presumably this is an adolescent who for some reason or other is kind of looking in the direction of the health field. And so I assume, then, that one of your objectives which you're going to make explicit is something to do with orienting this young learner to the health field. Now how are you going to do that when there are several hundred jobs in the health field and when nursing can't make up its mind what nursing is? How are you going to tell these learners what nursing is? Now, medicine has a few problems too. And come to think of it, the medical lab does too. When you get right down to it, the whole health field has a few problems. But you as a teacher can help these youngsters do a lot of exploring, collect a lot of information, take a look at a lot of self-interest reports, interest inventories is what I'm trying to say, self-reports, from various instruments for studying self and developing a sense of identity and all that sort of thing. Relate what the youngster learns about self to what he learns about the health field, and then try to put it all together as that first tentative vocational decision. And that decision may be--take the health field--no more for me. If it's that, it's still a valid decision. Participating in your course and finding out that the health field is not for him or her, amounts to a very valid educational experience. So, if this learner rejects the health field after participating in your program, I hope it's because this learner found out that the health field requires certain performance elements, certain personal attributes, certain approaches to a career, that are not for him; rather than that your program was so adverse that he's hopelessly driven away.

I happen to have one youngster who was subjected to some adverse conditioning by a math teacher; so I'm very sensitive to the affective outcomes of instructional programs. She happened to have a math teacher who used additional math problems as punishment, not for the person who annoyed him, but for the whole class. So he wrote the assignment on the board. Every time someone did something to annoy him, he went up to the board and added more problems for them to do for tomorrow. So everybody in that class came out of the course hating math, and that was at the ninth grade level. So, he was very effective in teaching people to hate math. I don't know how many of them can set up an algebraic formula today, but I would say probably not very many of them.

Now this matter of where. We'll presume you'll be doing most instructing in a school setting. But, how can you introduce this learner to the health field if you keep him in a classroom? I'll suggest to you that you can't, and

that you have to get him out into some clinical settings. You have to get him out into the community and find out about all these health related activities that are going on in the community. But, you're going to have to be very ingenious at finding these community aspects of health related jobs or careers. Please don't let your program become totally hospital-oriented because we hope that health services will, in the future, be moving away from the hospital situation, where they've been concentrated for the last twenty years. And we hope that health itself is going to become community oriented.

Now I ask you, if you're going to be teaching a health careers program, whatever you call this program, how can you deal with what these people must know unless you yourselves have first-hand knowledge of these health agencies? The health agency is a totally different bureaucracy from education. You have people who agree on that. I don't know how many of you are health people. You don't function the same way in a health setting that you function in the educational setting. It is quite different. So to me this almost mandates that our teachers in these health programs have first-hand knowledge of these agencies and, in so far as possible, of the performance requirements of health workers. Now, we can't all of us be all kinds of health workers. Most of us are pretty familiar with one particular tract in the health field and we know the others from observing our colleagues in the hospital and so forth. I have a fair idea of what medical technologists do and what laboratory assistants who work in the laboratory under the technologists do and I have a fair idea of what the medical technician does (the technician is in between those two). But, I could not begin to teach any of the entry level skills, except how to wash a test tube. I know how to do that, because I took chemistry. These entry level skills become, to me, a part of that testing of self against the requirements. You can't have a high school youngster really experience what it's like to be a doctor and how it is to listen to complaining women in the office all day long. But, you can give him some entry level skill, even let him find out what it's like to make a slide from a stool specimen. If he can't stomach that, he can't stomach working as a med tech all day long. You know, that might be an aversive experience, but somewhere along the line they've got to find out. Can they stand the unpleasant aspects? Can they stand the sights, the sounds, the smells, of health agencies? Let them find out before they've invested four years, or eight years, in educational preparation for working in that setting.

We're talking about a secondary level program. But I would suggest to you that this needn't be just from Monday through Friday between the hours of eight and three. Your assignments can get these youngsters out into the community to collect data. And remember, when you help them to learn procedures for collecting information and interpreting information, you're making a real contribution to their intellectual development because you're helping them to develop intellectual skill, rather than just having them memorize a job description for nineteen different health workers.

And so, I would suggest to you, that as you plan your program you give a great deal of thought to who your learners are and where you're going to conduct this program. And ultimately, the question that you must answer with your program is this one: What should my students become, by the end of this course (become in the sense of a person and a worker)? What must they be able to do? What attitudes do you want them to have? This encompasses legal requirements, feelings about people, philosophy about the worth of people, whether poor, dirty, or middle-class, and it also includes the ability to make

a decision and do some goal setting about, ...where do I go from here? But what I hope you would not fall into the trap of doing is saying, Well, here we've got a course to design. Anybody got any ideas how we are going to design this course? Because that's the way so many of these irrelevant courses that today's young people reject have been designed --not in terms of the learner and what he has to become, but in terms of--well, we've got a course to teach, let's figure out how we're going to do it. So I hope these comments have given you a little food for thought.

I would like to just point this out to you. The American Society for Allied Health Professions put out this book listing categories, tracts as we call them in vocational education, within the health field. They've categorized the various health jobs. There's a wealth of information in here around which you can build some occupational information which I assume is going to be one component of your program. You can write ASAHP and I'm sure they'll send you a booklet. And, I understand that there will be time for questions later. So, if I've raised some specific questions, then I can react to them later. I'm not sure I have answers. As you see, I have a lot of questions myself.

POWERS: Wisconsin is to be commended particularly, I think, for being one of those leader states that has contributed to the development of secondary health occupations programs. It has been stated before, but I'm going to state it again, that it's a relatively new concept. I remember in the early 1960's when we were talking about starting some instruction for students at the secondary level. Up to that time some students were trained for cheap labor as nursing assistants, hospital attendants, and that kind of thing. It was quite questionable training in many places. In some places it was quite good training. Many of those programs evolved into programs in practical nursing at the secondary and the post-secondary level. We're not condemning them all, but what we're saying is we started thinking in terms of a much more comprehensive program for these youngsters in high school.

I remember how we were just as excited as we could be when we discovered that the State of Wisconsin had funded a project for Al Pitts to test out some of these concepts. Later, he reported to us at one of the state association conventions on his findings. I think that everyone who attended that convention was quite impressed with the fact that, yes, there's much we can do at the secondary level. A number of other people were contributing to this at about the same time. They made us realize that there had to be a great deal more done. We had some other projects going on in the early 1960's. The Cincinnati Public Schools were conducting a project of this nature. Then, Atlanta, Georgia set up a project. And out of all of these evolved the feeling, I think nation-wide, that we had to take a giant step, and take it very fast, because we were so far behind.

Other fields were in the schools at the secondary level and below with their occupational information, occupational exploration and training. Agriculture had been there forever, almost; home economics had been there for a long period of time. Practically every other occupational field was operating quite successful programs at the secondary level, and we in the health field were still holding back and saying "Well, these youngsters are too youthful, we're going to shock them with all the things that go on in the health field. The minute they see someone who's dead there's going to be irreversible shock in these young people, we just don't dare expose them." Well, the truth was, youngsters I knew about that time, many of them, were

taking their dates down to the local morgue so that they could see somebody who had died, to satisfy their own curiosity. They hadn't had a death in their families and they thought this was part of a learning experience, and they should have that. And they were really quite well informed. Most of them had had a great deal more experience than those of us in the health field would give them credit for.

At any rate, as a result of the experimental programs that had been conducted up to that time, we at the Office of Education put a priority in public health services. An extensive amount of money was allocated for research work in the allied health field that took a good hard look at the occupations we're talking about. We were not interested in looking at one occupation. We wanted to take a good look, in depth, at a whole range of occupations, from their entry level up to the level in operations that would require an associate degree. We urged that it go beyond that and look at the total range of skills and knowledge required in all of these occupations.

Because of this interest and commitment, the Office of Education provided the money and we went ahead with our requests for proposals to do an analysis in at least eighteen health occupations at the technical level. These analyses were to be done, and curricula developed on the basis of those analyses. The project could specify which eighteen it would select and we would accept whatever those eighteen were. The project was submitted, the selection process was followed and with the help of an astute committee, the selection was narrowed down to three. A review committee went out to visit the projects that the committee had decided to consider. Many of you know the outcome of those visits. The Office of Education funded one project with 1.4 million dollars.

It is my job, on this panel this afternoon to tell you a little bit about that project and also bring in results of a few of the other projects that were conducted.

The secondary school project under the UCLA Project was an after-thought. I said before that we were convinced that we needed to have a massive look at the health field. Along with it, we knew we needed to have a look at what needed to be done at the secondary level, but we did not include it in the original specifications for the project. It was just by happenstance that a project that had been funded through another applicant had to be reassigned. It became obvious that the logical thing to do was to assign that secondary school project, under the umbrella of the large UCLA Project, so that there could be simultaneous study made of the possibilities of training secondary students, and a study of the articulation between the secondary and post-secondary levels.

Let us look at some of the findings of the UCLA Project which covered the four-year period from 1968 to 1972. Actually it ran almost to the Spring of 1973, by the time the final reports were in. The study, as I said, had two parts. It covered post-secondary education and the development of curricula in at least eighteen occupational areas. We're not going to talk about that part of it today. But, I want to point out that there is an extensive bibliography on that. The Center has provided us with a very good selection for a bibliography of materials from that project. But, if you want to see how much more extensive it is; if you are really interested in procedures and processes as well as the materials produced; then send to the UCLA Project for it. The address is given in the front of any one of the booklets provided from the project.

We're going to talk only about that part of the project which deals with the secondary program--a case of the tail wagging the dog. Over a

two-year period it became obvious that the interest and excitement over the secondary project was beginning to almost overshadow the enormous work, and the good work, that was done at the post-secondary level. The secondary school project covered a three-year training program at the high school level: grades ten, eleven, and twelve. In the first year of the sequence, it provided an introduction to health careers; in the second year it provided work in a variety of health settings; and in the third year it provided a cooperative or work-study experience.

Why did the project concentrate on youth? Well we've said here already, but I'm going to repeat it again: Unemployment among teenagers is a very serious problem in this country. The health field is not the only one which says we don't want the teenagers. It is not the only field that has great difficulty finding the right job for an inexperienced, untrained person. But, I have always said to leaders in the health field that while we're not the only ones, we're one of the worst because we drag our feet in trying to find a solution to the problem of placement for youth and for the teenager particularly. Youth are, in our educational institutions, readily available. Where else should we go for students? That's the second reason the project concentrated on youth. Why go out and recruit a group of people who've been scattered all over the community and who have no common ties any longer, who have many diverse interests that would make it difficult for them perhaps to get into a program of orientation, exploration, and skilled training. Give them the opportunity when they are in the school, where they have in the past experienced little or no interest in what has been presented for them, and have simply marked time until they can legally drop out of school. So in schools, we have a readily available group of people. So, let's concentrate on them.

School dropouts in California, as in every other state, including Wisconsin, are quite numerous. This dropout problem did not necessarily begin at the ninth grade. It was beginning as early as the seventh and eighth grade. While the project focussed on grades ten, eleven, and twelve, it was observed early that in order to capture the students, project workers had to make their contacts in the junior high schools and begin to work with the students at least in the ninth grade, if not the eighth grade, before they would drop out of school. Basically, the project was designed to-- and I think these things are all significant for our work here this week-- acquaint students with the allied health field, to provide them with training in it, and to offer the students experiences that are positive, in order to encourage them to continue and utilize the educational system for their own purposes. These students who, in the main, found the educational system something to tolerate, had never learned how to utilize it. They hadn't learned how this system could serve them and their interests for the future. The project was designed to help them acquire skills and information for use in the world of work and to help them learn how to compete and move upward in the work situation. That's a very important thing to learn. Now when I was young, I used to think that you just waited until somebody pushed you, or pulled you, and that was how you went upward in the world of work. And I found out, no, there's a technique here. And you'd better learn it early, otherwise you're always going to be down at the bottom of the heap. The project was designed to give students a better understanding of the health field and to make them better consumers of health services.

If you don't think it did, you should have visited the students some time during the project to watch one class of these students prepare and perform for their instructors and for their parents and guests in an evening program. They demonstrated what they had learned in a year. These were tenth grade students completing their first-year in the project. My remark to one of the instructors was, "I have attended sessions with medical students, and I have not heard any more professional presentations from them than I've heard from these students who are completing the tenth grade." And another remark that I heard all over the room was: "Thank heaven for this program." At least here we have twenty-five students who can go out into their community and if someone needs a doctor or some emergency health care; any one of these twenty-five students would have volunteered to provide the information and would have seen to it that the service was provided. This is exactly what they were doing at the end of a year in a ghetto area. They were taking people to hospitals and clinics. They were bringing services into the homes...to their people.

I should mention the fact that one of the information type services they were very ready to provide was in the area of venereal disease. Many of these youngsters, who went to bed at night with enormous fears, were guided by their fellow students to the public health clinic up the street, or to physicians who would treat these youngsters without calling their parents. They needed many kinds of information, but they found out that there were ways to get information, ways to get help, and ways to take care of themselves. In fact, they were more proficient than some of my very well-educated professional friends.

I'll never forget one day when my co-workers in the Office of Education came to me and said, "Our maid has a very bad toothache. She needs some dental care. Where can she get it?" One of the students in this class could have told you where to get dental care and would have sent the person right to the proper place to get it. That's what I'm talking about. We pretend that we have this information, we who come from the middle and upper-middle classes and who have had the economic and social advantages. We pretend we know and we muddle through somehow to find out because we have intelligence, experience, and the contacts to find out. The youngster, at the teenage level, doesn't have consumer health care information but he needs it, he wants it, and he will absorb it very effectively, if you will just give him a chance to do it.

Another part of the design of the project was to guide the students into positions, occupations, training programs, and maybe into further education. The options were as broad as you can conceptualize them to be. The students acquired health knowledge for their own use and they were pursuing life sciences that would afford important practical and academic studies for them, regardless of their future educational goals. One of the things that was stressed throughout as one of the outcomes of the project but that had not necessarily been built into it from the beginning, was this development of the self image. The student learned very quickly through the positive learning experiences that he or she had worked, that he or she had talents that could be developed, and that people needed and depended upon him for his knowledge. So the self development aspect was a real asset as far as this project went.

Now, I'm going to mention very quickly several things. You're going to have to utilize public materials in order to pick up on the detail of several things. I'm not going to go into that. But, let me mention just momentarily, the teacher's role in the secondary program. Primarily, the teacher introduced

only broad new areas of learning. The teacher did not present detail to the student. Instead, let's say the students were learning about fractures--the area of learning then was fractures. What do you do about fractures? The teacher merely introduced this. The students then took over, either as individuals or in small groups. They did their own research. They found people with whom they could talk. They found resources in the library which the teacher had placed there so that they would find them, naturally. They looked into their own communities, into their own backgrounds, and into the resources of their own peer group. They came in with all the information that was needed. This was far more information than the teacher could have presented even if she lectured for many, many hours. So the role of the teacher changes tremendously. She spends more time with individual learners, guiding them, than she does with the class as a whole or with groups in the class. Students have a different experience. They have successes rather than failures in learning. The objective is to find, early, something the student will do and succeed at. The teacher must be very expert in selecting what this learning will be; and it doesn't matter whether it's learning to be a nurse's aide or if it is learning to be a dental assistant. The important thing is, that it is a learning experience that is small enough, yet challenging, and an experience the student will succeed at. Once the student succeeds at one thing, it's easy enough to take the next step and succeed at another point. And, eventually, he or she accumulates a number of successes. The student is then quickly motivated to move ahead in the program, and to move ahead rapidly.

Now, in addition to the teachers and the students, the staff must be considered. You're going to be talking about this, I trust, in your work sessions. There are very special demands made upon staff in this type of program. You know what some of those are. Some of you are working at it. You know that counseling and guidance and individualized teaching are all essential. Let's see how many more of these special needs we can come up with in our work group that are different for the secondary health occupations program. The program differs from the traditional vocational education program--and my good friends in vocational education are going to say that it's not vocational, but I tell you it is. It introduces students to broad fields rather than giving them total training for a specific job. I didn't say it didn't give them any job training or skill training. Rather, it focuses on a broad range of skills for many different jobs. The students become involved, then, with many different jobs, many different types of employers, and with many facets of the educational system. As a result, the student is enabled to make wiser choices and does succeed in the program at a level far beyond that which any teacher who has had that student would have projected.

Dr. Millikan has already mentioned that planning and preparation for this has to be done. She has given us some excellent points to guide us in doing that. I'd like to mention that we have to consider an outreach program. We did have to go out after students, you know. If you send out a questionnaire, and somebody did, to find out how many teachers would be interested in a secondary program, and how many students would be interested in going into the program, well you know what the result is. As Dr. Millikan said, if you don't ask the right question, and if you don't ask it to the right people, then you get answers which you can't use. So, with this program, when it is newly conceived and newly established, an outreach program was and is definitely needed. The program can be one which is extremely narrow, in which one school and one health agency are involved. California called this the "nuclear approach". It had the bare essentials for providing a program. This is the

general approach used in most areas today, I believe. But, they recommend very strongly that one should always attempt to establish a total community program, or a comprehensive program. Now the difference is simply that the total community is involved in the latter. One would not simply involve only one school, but would involve elementary schools, secondary schools, community colleges and/or universities if there is more than one of these in the community. One would involve not only all types of schools, both public and private, but one would involve a number of different hospitals, many different health agencies, the health department, practicing physicians and dentists, and a whole range of health services, in order to provide an open door for the students that the hospitals alone, or a hospital alone, could not open. California included work study in its project. It provided cooperative work education, which implies that there was a good deal of skill training. After this training, competency levels were adequate for the students to be placed and employed.

It was most gratifying to the team at UCLA at the end of one year, when every student in that class of 100 had succeeded. They had 900 applicants, so they could have selected only top academic students. Rather, they had selected a cross section of students. Some of these students had never really achieved anything, when compared to the high achievers. But, every single student in that group was requested by an employer for the summer. The employers didn't have to employ these students. The point I wanted to mention, however, is: If you have an effective program that involves the community and the students in this way, the students don't have to peddle their wares to get a job. They are asked for long before that stage is reached.

Now, I know over-training, over-recruitment of trainees, and oversized classes are going to result in some congestion in even these lower level jobs. But we're not talking about a student being trained to spend five years in that same job. We're talking about a student who is going through a phase of secondary health occupations education and is going to move on. Most of them are not going to stop in that job. That's not the objective of the program. Thus, the job becomes open once again for another student, and so on, as the program progresses.

Another thing, the employers indicate that they don't care if you train that student in all the skills they want performed. If you can train the student in some of the skills and can instill the proper attitudes along with a good understanding about what the health fields are all about, then the employer can train them the rest of the way. It is the basic attitude and the basic understanding which are awfully difficult for the employer to instill in the employee. He usually hasn't that kind of time. If a school can accomplish this much of the training along with some salable skills, then the employer is usually very happy to hire this individual, although he may not think so at the beginning.

Now, I have a whole list of problems for consideration. In fact there are two pages of them; and I'm going to save them for the work group sessions. If my colleagues here want copies of them, I'll be glad to give them to you. Just let me say that the projects to date, including the UCLA project, have been milestones in the secondary program. To account for this, I think it was a phenomenal growth to go from nearly zero students in health occupations at the secondary level in our public schools, to approximately 60,000 in 1972. You may be interested to know that the projection of needs on the chart there (which is one we made a few years ago in the Office of Education), is that by 1979, or 1980, you will have a half million students in public secondary schools, who will be enrolled in a program in health occupations. And I would stake a great deal on that projection. The interest is there and the need is there as well.

QUESTIONS TO ELIZABETH MILLIKEN,
HELEN POWERS, AND GLEE SAUNDERS
ON "NATIONWIDE HEALTH OCCUPATIONS
TRAINING AT THE SECONDARY LEVEL"
May 16, 1974

Q: It's '76 in only two years from now. We've got a lot to accomplish to reach those figures.

POWERS: A half million in '76 -- We only have two years to go to reach that. The figures that Mrs. Saunders gave us are good figures. But, unfortunately, a lot of our enrollments in the secondary schools are not counted as vocational students. I discovered that last year. Because they're in the secondary school, there's a question as to whether they're really in a vocational program or not. So, the vocational educator protects himself and doesn't report them. So, I don't know how many are in these programs, but my guess is that a great deal more than 60,000 are. I think Wisconsin is at a crossroads on this in terms of decisions that you're about to make here. If we can help in any way to get those decisions made, we'll be quite proud to have been part of your workshop. I'll be here for your questions, and we'll go into this further.

Q: I was interested, Helen, in what you were saying about these participants at UCLA. I've done some reading about this project. But what has been the follow-up on these two sides as far as occupations for work or for study is concerned?

POWERS: The follow-up on them has shown that those who were interested in working in an area have always found a job in that area. Now, you have to remember that the high school project has actually operated for only four years and, with students, three of those years. They have just completed the first group that they enrolled. The follow-up has not been completed as yet. There is information on individual students, but I can't tell you the number who are in post-secondary programs. And so far, I believe nursing captured more than any other group. This is one field that is more opposed to programs at the secondary level and is the one that received more applicants from the group of students. And they were accepted, I understand. But what their performance level is at this time, I would not attempt to say.

Q: Helen, do you mean that when they started, the first enrollees were 10th graders?

POWERS: Right -- 10th graders. And they didn't have an 11th and 12th grade until the 2nd and 3rd years of student admissions. You see, they weren't in school during the summer months, and during the two years that I'm fully cognizant of, every student was employed in the health fields during the summer months. But I do have to hasten to add that, as in every school district, students moved out of the district. And a few students dropped it because they had decided what they wanted and needed in academic preparation to get into college. So they left the program in order to take a full academic program to go on with preparation for admission to college.

Q: But the point of the program which you brought up, which is Betty Smith's complaint, is that it did allow kids to build upon successes, did it not?

POWERS: Right.

Q: As I recall, much of the program took place in a ghetto area. Isn't that right?

POWERS: Three of the schools were in ghetto or poverty areas. One of the schools was in the Watts area. I think everyone is familiar with that area.

It was at the school in the Watts area where I attended a graduation exercise, that I saw the students perform and talked with them and their parents. And you can't talk in generalities about people like that. There are no general terms to describe them. You have to talk about each individual. Once you get involved in it, there's no way you can talk about how such-and-such a percentage did this, and such a percentage did the other. But each individual did certain things, achieved one thing or the other. I'd like to point out that a good percentage of these students, about 90%, were classified as non-achievers or very low achievers. I think they had only 12 percent who were in the higher level of achievement. The others were in the low or middle levels. Yet every student succeeded. When that first group of 100, and those who were left in the group, graduated, they were given a certificate. Along with the certificate they were given a task list for every skill that they had learned successfully while they were in the program. They kept that task list with them, for employers to use as a reference. The task list indicates that the student knows how to do this particular thing and can do it successfully, with or without supervision.

Q: What were some of those tasks? Were they largely the nursing assistant type of thing?

POWERS: No, there were skills across the board. It was not nursing assistant training. The students could choose any area, and they rotated at the end of four weeks into a new area. They were given their choices. But if the student chose the radiology department and then decided he did not like the dark room and developing film, which was one thing they did in the X-ray department, that was unfortunate. The student had chosen it, and he knew he had to complete that assignment there and that he must abide by his own decision. The students accepted this, that: "I made the decision - my teacher didn't. I don't like it, and I'm not going to like it while I'm here." But they stayed and they didn't drop out of the program. Even though students cut classes, they would cut a class but not one of them would cut the clinical experience. They were in attendance 100% of the time, except for times when there were a few illnesses.

Q: But now, so far as the tests or competencies themselves, were these taught by the supervisor or whomever in the clinical setting?

POWERS: Each student in the project was sponsored by a professional in the health field. Within that setting, the school recruited physicians, radiologists, technologists of all kinds, dentists and therapists. They were given one day in which they were apprised as to how they might approach a particular type of student in order to teach them a skill. It was agreed in a particular department, as to just what kind of skills a student might learn. The department did not depart from that, without the project's approval, except in an emergency. That did happen once.

That exception occurred in the cardiology laboratory. The student was assigned to a physician for a period of one month. An emergency occurred while they were in the cardiology laboratory. A patient having cardiac catheterization went into shock and the physician, without thinking, assigned everybody a job, including the student. He was a handsome, tall Black teenager who was the proudest thing in the whole United States after that incident was over because the patient was revived and survived, and he had had a part in it. He was assigned the task of the administration of oxygen. I think that was what his job was. He watched a needle to see that things were all right. He stood there and he didn't faint. So he was very proud

of himself and rightly so. He was an extremely capable youngster who had never done anything in school. When I talked to him, he was wearing one of those beanies with a big ball on top of it. He wore that all day and all night as his usual dress. But he was as modest, unassuming and as direct and honest as any student or person you might want to talk to.

Q: We've talked about the kind of a setting, and the kind of a hybrid vocational program that relates to career development...

POWERS: See, I don't call it hybrid. It's a real vocational program. I think it's as real as agricultural education ever was, or for that matter, home economics education.

Q: All right, it's a vocational program. But the point of the matter is that there were indeed competencies that were determined that would relate to this special kind of a program. And there was some training given in the acquisition of these competencies.

POWERS: That is correct.

Q: And it was not necessarily particular to any other job description, like a nursing assistant or whatever. It was another set of competencies.

POWERS: No, they were competencies within a health area. Students could perform these while being assigned in an area to observe. They then communicate with their sponsors and with other persons.

Q: It was a gathering of many competencies that could be taught to those students.

POWERS: Right. They were various entry level competencies; the total was not peculiar to any one occupation. Rather, they cut across many occupations.

Q: I think that's rather significant to what we are going to be talking about as we talk about goals.

POWERS: I think it is very important because just as you are teaching English, you are not preparing an expert in English. You are teaching some selective skills in English so that an individual can help himself throughout life in the United States. But in the health field, this is precisely what the high school program was attempting to do. They attempted to teach some skills in the health field for the students' own use, in their own home, with their own families, and, incidentally, to make it possible for them to earn a living with those skills. If at the same time they helped the student to make a career choice, among all these exposures, then this was important.

Q: OK, you see, what they did was cheat. They tailor-made the program best suited to the needs and interests of the students, they personalized it, you see.

POWERS: That's right.

Q: And that's too contemporary and innovative for most teachers to be able to handle.

POWERS: It has one terrific disadvantage. It keeps the students in the program.

Q: I'd like to listen to someone with a Southern accent. We have her books, and even letters written on the subject...

MILLIKEN: There's not a single y'all in there.

Q: I wasn't aware that you were the health occupations education coordinator. You have a program, I understand, for teacher preparation in Georgia. Could

you give us the structure of that teacher prep course?

MILLIKEN: I'd be happy to give you that, but I sure do want to react to his question first, with just a statement. May I? I want to react to Al's question which he earlier directed to Helen because, to me, her answer is reflecting the beauty of vocational education, as I philosophize about it.

Helping people to become what they want to become is the important thing, rather than we as educators or people who are already in an occupation deciding who will be permitted to enter a certain career. To me this is a philosophical base on which I like to design an occupational program. There are people who have goals in relation to an occupation and it's up to us as educators--if we're really professional educators--to help them become what they want to become, instead of saying, "Your reading level is only a fourth grade level and, therefore, there is no chance of you ever getting to be an automotive mechanic. You can't read the manuals." OK, let's help him improve his reading skills while he is learning the skills that will help him function as a mechanic. In other words, bring him along educationally, rather than focussing only on the skills.

Now, "skill training" is using the terminology that the Labor Department tends to use. In the philosophy of your program, you can go strictly skills, which means never mind the supportive aspects, the counseling, the development of the tool skills for learning and the tool skills that would enable the individual to go up the job ladder. In this approach you just give the learner enough skills to get him on a job. That's skill training. That's not education. And as vocational educators we should focus on vocational education--Education for an occupation which would include career development. But, you simply have to make it a little broader than just skills. I don't see how you can even do an exploratory program without getting some skills into it, because what are they exploring? Unless they get their fingers in the dough, so to speak, and find out what it's like to do certain things, and particularly to do them day after day for a week, you haven't really explored that field, or that job, or whatever.

So if we were talking about automotive mechanics, I'd say the engineer may go through a whole engineering program and never really, unless he has an interest in working on cars, find out what it's like to get his hands dirty. But of course, most engineers do like to work on their own cars. I'm just using this as an extreme example. You can let somebody go through a whole, extensive education that deals with theory, and they never find out what skills are involved until they get on the job. We've all seen people who have done this. Then they get on the job and they can't stand it. Now, let's not let that happen in the health field because these workers are serving people. And in some fields, if you get so frustrated you can't stand it any more, you can kick the machine you're working on, but we'd rather have health workers not be that frustrated. So what we're striving for, then, is a program which enables people to test themselves against the demands of lots of jobs in the health field.

I've just finished a course with a group of teachers and I have some of their papers here with me. Most of these people were registered nurses, but they were forced to take ten jobs from tracts other than nursing from the ASAHP manual. They had to try to deal with how to introduce a student to a particular career opportunity in the health field. So then they were forced to deal with some skills. For example: this is a person who's thinking about being an administrative aide in a hospital; this is a person who's talking about being a certified laboratory assistant (that's your

entry level position in the clinical laboratory); and this is a person who thinks in terms of, maybe biomechanical engineering. What is the entry level position for biomedical types of jobs? Of course, the biomechanical engineering is very much needed in health facilities today, what with the complex monitoring equipment and what not.

They were forced to take ten jobs, one job from ten categories, for this assignment. They then had to list skills, taking one job at a time, and list ten skills for each job. We put all of this on a matrix, with skills across the top, jobs down the side, and start checking off. And once they had identified the commonalities, with their matrix, they designed the units of instruction which would help this learner get information and also develop at least one skill related to most of the jobs. So our sequence of units first became the units that introduced them to a number of jobs. This led up to a unit that would introduce the learner to something involving only one or two jobs. They were gaining skills which would maximize employment opportunities. They weren't limited to a nurse's aide job. Ultimately, the youngsters who had gone through these various units would have at least ten jobs in which to get summer employment.

I think, for the health fields, we've got to use an educational approach and not just skills. I think some of the problems we have in hospitals are due to on-the-job training programs where aides have been given a few skills and not much on communications or interpersonal relations and not much on ethics.

I'm always talking about this "quality" in the health field. We need to have "quality" care by aides and physicians. And, by "quality", I mean knowing what not to do and what not to say, as well as knowing how to do well whatever it is you are doing. So I believe in education, whether you're educating an aide or a physician, I think it should be education.

Now about the teacher education program: we admit only credentialed health professionals to this program. We are convinced of this selection in order to provide proper education. You see, our program is a health careers exploratory program. We don't mean exploratory only in the sense of playing around with it. We do have these high school students come out of the program with entry level skills in at least four jobs in the health field. And we handle them as job families rather than specific jobs. We think that in order to teach the ethics, the coping skills, the functional strategies and what not of a hospital, this teacher should be a person who has actually been employed in that hospital. He should be a person who has actually delivered health services and, for example, one who knows what it's like to be caring for a dying patient or how to deal with some of the many difficult situations that arise. Well, our philosophy happens to be that a health occupations program is a teaching field. And this we state in our philosophy. And any teacher who is not a health professional is employed out of his field if he is employed to teach in this program. Therefore, in order to enter this teacher education program, this person must be a credentialed health person. This person might be a dental assistant, a medical technologist, someone from the military who's taken a proficiency examination and obtained his credentials. We're not tying it to educational requirements and saying they have to be a graduate of such-and-such a program. But, they must have credentials of the health field. My program exists to help them get the credentials of the education field.

These two fields, you know, don't recognize each other's credentials. So the education field does not recognize the registered nurse who has

completed a 36-month nursing preparatory program and who has taken a licensing examination--a national test pool examination. As far as the University of Georgia is concerned, she's an undergraduate. In terms of length of time, she has the same training as the B.S. graduates. We've worked out a system in which we give credit for that preparatory education in the health field. It's not blanket credit, but rather, it's based on the instructional hours they received. For our diploma, nurse graduates get anywhere from 30 to 110 credits, depending on how many instructional hours they have in their own program. And this is evaluated on a formula basis, which means I get to spend an hour and a half analyzing each transcript, and planning a program. But we say, this is the teaching field, and this is the related science, the health-related science, of that teaching field. We give credit for nutrition and diet therapy as a related science for nursing. We give credit for anatomy and physiology, although we don't claim it's the same anatomy and physiology that's taught over in the zoology and biology department. We simply say it is relevant to this person's teaching field and it was taught to the depth that this nurse needed. That's what's important. So that's why the hours can be as much as 110, because there can be some health-related science and behavioral science in there as well as nursing.

And then, of course, there's the dental assistant who's completed a one-year program, instead of a three-year program. This would yield less credit. The maximum that anyone could get for a one-year preparatory program would be 45 quarter hours. So we like to think it's a personalized program, both in terms of transfer of credit, and in terms of adapting the program to the goals of a particular teacher. If this is a post-secondary teacher and she plans to stay at the post-secondary level, we don't worry about practice teaching. She doesn't need a post-secondary level certificate, in Georgia, anyway. If she is a secondary teacher and wants to stay at that level, then we do have her meet requirements for teacher certification. So the goals of each individual entering the program, influence how we design the program at both the undergraduate level and the graduate level.

Q: In the UCLA project, there were test analyses. And the one that really impressed me was a nursing test that was done by different levels of nurses. Only twelve percent of nursing skills require an RN. Am I right?

POWERS: I thought you were going to make the point that a large percentage of the tasks performed by nurses are performed by other health workers in the health field. They are not totally nursing tasks.

BOSS: This is the thing that the Oregon task analysis will tell you.

Q: Do we have any fear that we may be concentrating in the exploration of health careers at the secondary level and directing these courses to serve the potential dropout more than all students?

POWERS: I think that we expressed some fears in some discussions on that in the UCLA Project and in other programs because I personally recall many times urging the people to be careful of filling your flocks entirely with disadvantaged people. If your program can serve only people at that level, then there may be something wrong with the program. So they did recruit and interest other students on this very high level, on a scale of 1-4. But because of the requirements as they could see them ahead, and the counselors made it very clear to them that they'd have a certain number of units in science and a certain number of units of something else, they were frightened off from the program. If they enrolled, they'd eventually drop out of the program in order to meet these other requirements because they didn't have time to do both. So it wasn't because the program didn't serve them.

It was because the system made it difficult or impossible for them to take advantage of it, although many of those students wanted to take advantage of it.

Q: I would hope that any health occupations program that we do in secondary schools would serve all students.

POWERS: Because of individualized instruction it can be done. If it had been simply, everybody gets the same meal from the smorgasbord, then, of course, you couldn't possibly do it. I recall there was a Mexican-American girl who had never achieved anything in school. I think this is a case history we ought to keep in mind. She was a very sweet, lovable person whose mother was so enchanted it was unbelievable because she had never added two and two and come up with four. She didn't know what four was, or any other number. They took her into the project and, in the orientation period, they exposed her group to the cafeteria service, where patients and employees are fed. The girl walked away from the group and walked over to an empty cash register and started punching. She had seen people punching these keys before and she wanted to see what would happen. Within a very short period of time that girl was a cashier in that cafeteria. Nobody knows how she adds or subtracts. She never learned how at school.

BOSS: Helen, if we had these modules and self-paced them and personalized them, and had pretests and post-tests, we could revolutionize this thing.

Q: Are we saying that the possibility may exist, that this could be a funded program and meet the criteria for a vocational program, if it were adaptable to all students in high school?

POWERS: It is funded in California in quite a number of high schools, with vocational monies. It was funded there by demand from the school administrators. There are many states that have this type of program. I don't want to mislead you by implying California was the only state funded. The total career education concept was implemented in the school system in Watertown, South Dakota. Now those are all vocational schools at the senior high school level. They're directed toward exploratory, skill training aspects and continuing education at the post high school level.

Before I give up the floor, may I tell Al, who raised that question a moment ago, that, in the guide published by UCLA for establishing the program for phases 2 and 3, they have published a list of skills that a student may learn to perform. Then a student has a record on which these are entered and it is signed by the appropriate qualified individuals in the health industry. In the nursing field alone, they had listed 162 tasks that they performed. In the central service area, they have another list--I'd say, another 50 or 60. The business office of the hospital has another whole group of them. They even take up banking activities in the business office. These are skills in the health field. Please don't only think about nursing. We're talking about almost any skill that would be utilized.

Q: We seem to be emphasizing skills. My understanding is that we have tasks and nontasks. Is it possible for us to explore and redefine skills or expand the definition of skills to include things like attitudes?

BOSS: But those are skills too.

Q: Right. How will we approach this particular idea? Do we have the prerogative of saying communications is a skill? Understanding human behavior is a skill?

BOSS: If we can define what it is that we want them to learn, certainly.

Q: How are we going to be regarding skills? Is it going to be tasks ora..

KADISH: Competencies...

POWERS: I think that is a decision that you have to make. The roots of it are in this philosophy and objectives that were being discussed. First, you have to set down what it is you mean by a secondary health occupations program and what it is you want the students to achieve. And then you have the framework within which you can work.

Q: When I think about what we're going to be doing, this is what I think about. What I hear is a dichotomy within the group of skills-competencies.

MILLIKEN: It need not be a dichotomy. I prefer the term task. It is easy to identify a task. It has a first step which differentiates it from other tasks and it has a final step which means it's completed. You can take a task and build a learning unit around it by identifying the related information the individual needs, the appropriate work habits, the interpersonal relations, the recording skills and the observing involved. That's the easiest place to start. But when you finish doing the program, you certainly don't want to have just tasks. You wouldn't want a lesson or unit built entirely around a task. But if you take a task like observing and recording vital signs, it really isn't a task, it's a competency because it consists of several tasks. You can build a unit around that, which includes the anatomy, structure and function of the circulatory system and respiratory system because that's the related knowledge students must have in order to observe vital signs reliably and report them in the appropriate vocabulary. The easiest approach to designing a unit of instruction is to start with the task and then build the related knowledge and all the other things that you want to go with it and around it. Identify several jobs, several entry level skills, or several general skills that are required for most of those jobs, if not for all of them. Start there as your foundation and then build on it.

In regard to this question, "Can you call this a vocational program?" I just have to react to that. I don't see how you can call a health occupations program anything but vocational! Because it is occupationally oriented. If there is something about this program that bothers you because of your State Plan or Bulletin #1, then I'd say that portion of the State Plan or Bulletin #1 needs to be rewritten. It's obsolete because this is an occupationally oriented program in the sense that it is helping people prepare for employment in the health fields.

VOCATIONAL EDUCATION
AND THE HEALTH OCCUPATIONS

Ruel Falk

It's a pleasure to be here, and after just about two years as Director of the Bureau for Career and Manpower Development at the Department of Public Instruction, and knowing some of the frustrations in dealing with this particular area, I'm really pleased to see this conference taking place and I'm most anxious to see what the outcomes will be. Hopefully there will be something we can take hold of and do something with. We know what needs to be done. We're not sure exactly how to do it.

I'm particularly pleased that the people who are involved in making the preparations for this conference have put so much time and effort into it and brought in the fine experts to help get some positive direction and input from the people who are now operating programs. Hopefully out of this, we will come up with something which will suggest a plan that we can share with other people. As you know, what has gone on in the last few years: someone has had an idea and they pretty well have taken off and done as they saw fit and, really, we didn't have anything more concrete to give them. We only knew what the objectives were in a broad sense of the word. But specifically, we were really in a bind and then they'd say, give us something in writing. Well those of you who have been around a while, especially the LVEC's who have been trying to get a handle on this, know that it has been a real problem to come up with something in writing that we could share with someone and they could pick up and know where they're going and the best way to go about it.

I don't think I need to dwell any on the need. We have recognized the need. There have been plenty of studies that have identified the need and I'm sure you have read them. The State Advisory Council has been quite helpful in pointing up the need, in documenting it, and in giving us the impetus to get the resources to do something like this. Without that I may have been struggling within the Department for some time to get something like this going. But, an outside source identified the need and said you have to do this. Then having the State Board accept the recommendation with the go ahead signal, we were ready to say, "Yes, we're going to do it." Of course, as you already know, I'm sure most of you anyhow, there was a real question about how much should be done at the secondary level. I don't know if everyone accepts that, yet. It was a recommendation. The Department, our Bureau especially, and the rest have kind of gone along with it, I guess. At least, they haven't said you can't do it. They have taken the position that it is a very important part of a comprehensive vocational program. We do not see the secondary's role as merely survey and exploratory experiences. We think there are certain things in which we can actually provide some training and get students ready for certain occupations. Everybody will not agree with that I'm sure, but this is my position and I think it's the Bureau's and the Department's position. So, I think you're operating on a fairly safe ground if this is the route that you take. We have had, as many of you know who have been involved, a lot of frustrations along the way and we

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may encounter some more. I think we have resolved in our own minds that we are going to move forward and do something, and I'm here to assure you, to the degree that I can, I am committed to it. I will support it, and hopefully be able to provide some of the resources to make it work.

I realize that today you already had a talk about career ladders. Unfortunately, I had some work to do back at our office, and was not able to hear it. I do have a deep concern about career ladders, and I know the word articulation was mentioned. Articulation is one thing between the secondary and the post-secondary, but I think there are certain problems in any institution beyond the secondary because career ladders are not really in existence there. And they admit this. For instance, not too long ago we had a meeting with a group from Stout where we were talking about a big articulation project. And when it came time to identify the areas we were going to look at, one of the first ones, after auto mechanics, that came up for consideration as an area to concentrate in, was health occupations. Well, the people from the post-secondary level told us that it would be rather difficult to articulate our program with their's, because they could not articulate their own programs within the post-secondary institution. You're all aware of this. You can take a one-year program, I think that's an LPN, isn't it? I'm not too great on the words, but if I goof it up, straighten me out, OK? Well anyhow, they said that then if they wanted to go to a two-year program, there was no transfer. They go back and start all over from scratch again (In Wisconsin, that is). Then the third thing is that if they then wanted to go on for a four-year degree, the two-year degree wouldn't count. In some cases, they'd have to go back and start over again. So we got the impression that before we could articulate and develop a career ladder between secondary and the post-secondary, certain things had to be resolved beyond us before we could plug into it. I don't know what kind of progress is going to be made in that area. For those of you who are from a post-secondary institution or staff there, I'm sure you know this is true, it's no great surprise to anyone. But I think it is a problem that needs to be looked at. I guess this is something that perhaps tomorrow evening Dr. Kimmey may speak to. I think he is in a very good position to give you some ideas or directions. One of his main functions is to try to pull all the health delivery systems together, and to develop some kind of continuity or career ladder. He's not in good standing with certain groups. He's had a lot of criticism. Although he has had criticism, I think he is in a good position to modify some things. Anybody who is chairman of a governor's task force has to have a little power behind him...at least I'm assuming that, I may be wrong.

One other thing I think I would like to share with you is that health occupations covers a broad spectrum, everybody would agree to that. As you deliberate and look at possibilities I would hope that you would look at other disciplines, at what they can contribute and how you can help them do a more effective job.

Just last evening I was at a cooperative education employer appreciation banquet at Lafollette High School. It was for the Office of Education program. As they were introducing the students, I would hazard to say that there were at least eight students out of the senior class in office occupations who were working in clinics and hospitals. I know that they were not in health services, but they were in support services in the clerical, record keeping and the office part of the operation. As I sat there and thought about this conference today, I thought now there must be some way that those two can work together to better prepare these students for what they're going to do.

I know that you can't do everything for everybody on a group basis.

There may be some things you're going to have to look at and say: "Well, perhaps we need a mini program, or a module, an individualized packet or a lap or whatever to support the activities in the other areas." I also realize that there is quite an area for cross over between the health occupations and home economics. If you're going to get in support services in the food services and that sort of thing, it seems to me that the two working together with slight modifications, unique applications, could compliment each other very nicely. I try to think what agriculture would do and the only thing I could think of was; there is a relationship there somewhere between veterinary medicine and health occupations. The other one in distributive education, I'm sure that there would be some areas there too because of customer contact. Maybe there's an area for cooperation there. In industrial education, I can certainly see where there would be a lot of opportunity because of the maintenance of the technical equipment and the machinery. There is quite a bit of cross-over. So, I hope you don't take a narrow view and not recognize or try to articulate what you're planning to support the various programs in the other areas. This cannot be done on a group basis. We're going into more individualizing instruction and smaller units, and packets and modules and so forth. I think there are a lot of possibilities. It's just a matter of how rapidly we can do it. I'm sure the staff here can help you with identifying existing materials so that we don't have to rediscover the world. We can spend a lot of time summer after summer trying to develop a new thing. Well, maybe somebody already has it. I think you should be aware of that. I'm sure you will be made aware of various resources so that you can capitalize on what other people have already done.

The other big area, and I know that this is one of your objectives, is the problem of teacher preparation. You know what I'm talking about, right? Well, we are at ground zero right now in Wisconsin, as far as I know, and as far as all the information I can get. We have no teacher education program to prepare people to work in this area. We have no certification standards developed and I think until we get those two things taken care of we're not going to see the growth we hope we should see. We've got to have something down in writing and accepted by, I guess, the educational community, that they say is something that they can live with. We can always go to exceptional certification, but that only lasts so long. Then you have to do something about it. I have a feeling that that may be one of the more serious challenges because nothing happens quickly in that area. You go through a number of public hearings and you have to get it on the books long before it becomes part of the code. We have thought about proposing that someone write up the tentative teacher education and certification standards - that we could propose to the Department and the other agencies for consideration as far as certifying teachers for health occupations. We are holding back on sending out a proposal for that until we see what comes out of this conference. If you come up with some good guidelines, and something we feel can be implemented, we may not have to go through the RFF. We may say here, there are none who want to do it. I don't know which institution it will be in the State, but it's a real problem. I don't think anybody is real close to it right now.

Just as a token, in proposing our budget and developing our budget for new and expanded services for the next biennium, we have requested a position for a consultant for health occupations. We have made that presentation to the assistant superintendent. I went with him as we presented this to the superintendent. I believe they're supporting it.

In fact, she is very supportive of all of our vocational education efforts. I get the feeling that she is going to put that high on her priority list. When I asked for that specific item, one of the budget men said, "You have to wait until the next biennium to get that position." The possibility for negotiation would be to anticipate getting the position officially in the next biennial budget. We will have to write a description as to what this person would do and the responsibilities. We may have a chance of getting it funded prior to the time of the next biennial budget which would be over a year from now. This might be a way of tightening the strings. Other than that all the in-depth expertise is around the table here. I don't have it. But I just wanted to let you know that I, and the people on my staff, know this. I am committed to making it go and hopefully doing a better job by giving it the support and resources it needs.

I am convinced that there should be some training at the secondary level, within legal limits of course...don't forget that. In all your deliberations don't forget the Statutes of Wisconsin. I guess that that gets to be a bind. If you think it is not correct, perhaps what someone should say is, "Is that a valid thing or should it be modified or changed?"

We talk about everything today as based on competency. Competencies know no age limit. I think that if we're going to be consistent in our thinking, for instance, we don't say a teacher has to be a certain age, we say that somebody who has this person in a program certifies them as being competent. That is, the teacher has the needed competencies and has completed a program. It doesn't mean they have to spend four years at it. This is another approach you have to look at. Is age the magic question? We get in a hassle in committee meetings all the time over this.

There's nothing magic about a person's eighteenth birthday to make one mature enough, or whatever, to do something. The old saying goes that some people who are fifty years old are no more mature than some sixteen year olds. That is rather extreme, but it's a fact. Possibly, we have to look at the individual rather than at certain other things if we're going to make any modifications in the existing codes and statutes. Keeping an eye on those things. If you see some gross inequities or things that need to be modified, I would hope that as a group you could agree that this does need to be discussed and reviewed. I don't think you should be shy about it, because if you really feel strongly, and it's a consensus of the group, I think it's worth consideration.

I think that perhaps that's about all that I can share with you at this time. I know that you've had speakers all day and you've probably heard a lot more than I could ever share with you. After sitting and listening all day I know that you don't want to listen to the same thing over again.

QUESTIONS TO RUEL FALK ON
 "VOCATIONAL EDUCATION AND THE HEALTH OCCUPATIONS"

Q: About one-third of the way through your presentation you talked about one of the things you would try to do would be to try to get support for us to carry out our plans. What did you mean?

FALK: Well, I think support generally means the resources, the financial part of whatever you need. I've already given my commitment to it, but then the next step would be the resources to implement whatever you decide on. If you decide that there's something that needs to be looked at in the code or the statutes, that would put me in a different position, because then I would have to go through certain other areas to get that to the point where it could go, if it is going to come as a request from the Department of Public Instruction. Then I would have to go through the Assistant Superintendent and the Superintendent. But, I think many people are concerned about resources and we have committed resources and we will continue to have them.

Q: On the basis of what you've said, really the parameters of our discussion here is anything within the law, not necessarily a position taken by another agency or separate from the Department of Public Instruction, including perhaps the State Nursing Association, because at this point in time, they have issued a position paper, that programs at the high school level be survey kinds of programs, which is a little bit to the opposite of what we're talking about here. The need is perhaps for more training at the secondary level. Therefore, we do not necessarily give credence to that view as we deliberate here.

FALK: What I'm saying to you is that you have to be aware of what is in the statutes, and so forth. If you feel that that is not the only way, or the best way, I would say that you're entitled to a position just as much as any other group.

Q: Again, as long as it does not interfere with licensure we may....

FALK: You have every right to consider it then. Now, I know there are some nurses in here and they probably don't agree with that. I think if we see that this group really sincerely believes that there are certain things that we should do, and morally and ethically could do, I think we have to give it very serious consideration.

Q: Would it be practical to think that the recommendations that are made by this group here might be implemented on a pilot basis throughout the State?

FALK: Mrs. Strauss and I have talked about this. We have some tentative things down and we said that if this group comes up with a model that appears to be a viable way of doing it, and if some CESA, school or agency comes up and says, "We'll take that and we'll try it out," we would do it on a limited basis as a pilot project which would give it extra resources and considerations to find out if it really does work. I'm saying, yes. We would give it status which would enhance. Hopefully, it would motivate enough schools to try it to see if it really does work. That's the way we should go.

Q: There are healthy skeptics. They keep on saying, "We're worried about the road ahead." Well it seems to me that sooner or later someone has to go down that road ahead and find out what's going to happen.

FALK: Right. And most of our pilot school efforts are three year things that are evaluated. They're evaluated on an ongoing basis, but after three years we do a very intensive evaluation to see whether or not it's working and if it is the best way to do it. Of course, there would be modifications as you go along. If at the end of three years you say this is it, or maybe you should try this then, it becomes something that hopefully we would rapidly expand to other schools after it has been tested, tried and modified. Our whole secondary operation began that way, as a pilot school project. Then recently we went this route in agriculture because they weren't here when the pilot school was implemented. So, we went through the same thing to give agriculture a chance to try out the new and innovative things. They went the agri-business route and their enrollments have gone up rather dramatically. So, I would hope that we have agreed that it would get pilot status if this group comes up with a recommendation. We'll try it that way, test it for you. We would give it the extra impetus of resources.

Q: What is the role of the State Advisory Council on Health Occupations? What is their role? Are they existing now?

FALK: The committee is still in existence. We are trying to come up with something that we can give to them for reaction, realizing that they are advisory in capacity. They have not met for about a year and a half. Mrs. Strauss is waiting until this is finished and then she'll have something to take to them. Really, they are advisory. If this committee decides that they have some serious reservations about it, we would listen to them, but we would not be governed by what the advisory committee says.

Q: In other words we could well recommend something to the Advisory Committee or just go around them?

FALK: No, we wouldn't go around them. I didn't mean to say that. I mean we would take it to them for their consideration and deliberation and they may come back and have some questions about it. Then we would have to resolve in our own agency whether that means modify it or we say thank you for your advice, we still think this might work and we'll go ahead and try it on a pilot school basis.

Q: On the Advisory Committee there are representatives of the technical schools, are there not?

FALK: Yes. There's a lot of people represented on that committee.

Q: Will this future funding of health occupations programs at the local level hinge at all upon who teaches the health occupations classes? Does it have to be the home economics instructor? Could we have a physical education instructor come in and/or have some new breed of cat come in and teach these classes? Does it have to be a person with a fine arts background?

FALK: It has to be under the coordination and supervision of a vocational-certified teacher. Now what you bring in for a resource or backup personnel is certainly flexible.

SAUNDERS: What are the certification requirements for other vocational teachers? Is that standard?

FALK: They have to have a major in that area a minimum of 34 hours of major in that area. They must have at least a year of work experience related to the program they're teaching. They must have completed a principal history of philosophy of vocational education and if they're going to run a co-op method then they must have a methods course in co-op.

SAUNDERS: If they're teaching health should not their experience have been, then, in the health field?

FALK: We use a letter of endorsement which is not an official credential, but it has the same requirements as the vocational certification. If the home economics teacher is doing it, it's not because she has a degree in home ec. She has some experience in the health field. That's what makes it so tough. There are not many of them who have it.

Q: Might there be other possibilities for a teacher who would be a coordinator and facilitator of activities and programs that would be able to be utilized under other auspices? I'm thinking of a teacher who might teach a course and use for many areas of instruction a public health nurse who would not herself be the director of the program. Do you have to have a certified instructor or could you use this approach? Could the instructor be a facilitator?

FALK: There is a statute on the Wisconsin books that says that all elementary and secondary students be under the supervision of a certified teacher. After you've met that requirement, the degree to which they must be supervising and directly involved is always negotiable or subject to interpretation. Then you can bring in as a part of a team, another person with the background that you're talking about, as a resource person, as a paraprofessional, whatever you want to call it. But, remember what you have to do is to have a certified teacher in charge of the students.

Q: OK, now to be very specific, can you split this vocational certification between two people, in effect two people on a team: One a certified teacher who is the instructor and supervisor of students, and two, say a person with other health certification, for the vocational portion of the course?

FALK: We may take a rather narrow view but we think that the person supervising or coordinating should have at least a letter of endorsement.

Q: What does the letter of endorsement mean?

FALK: It means that the person has a degree in a vocational field. But, we have no program for teacher ed in health occupations.

Q: So we're stymied?

FALK: That's what I'm trying to say. Usually what it turns out to be is the home economics teacher who has had some experience in the health field. Now she may, depending on the degree, do most of the instruction. She may be responsible for it and bring in other people to work with her.

Q: That is what I'm saying. We've been stymied. Isn't there a way to get around it?

FALK: We have limited ways of doing it. It's all a little questionable. What I'm saying is we're looking for something that will say this is the

person and somebody is going to prepare them to do it. That's why the teacher ed. part of the certification is so crucial to come out of this group.

STRAUSS: This is our bottle neck at the moment. If you can't come up with a solution to that problem...forget about programs, right?

FALK: We're never going to grow if we don't have the teachers to run them. We do make exceptions and we do bend a little bit. As long as there is a licensed teacher in there, we say bring in other people if you want to.

Q: Suppose you work out a consortium arrangement with the vocational school in the area and one of their teachers - would they be certified adequately? Isn't that the only possibility that we have?

FALK: No, we have accepted that. We've done it in certain cases and it has been one way to boost and get some extra help and talent. Whenever I meet with the VTAE, the first thing they say to me, is that, "You better solve your own problems. Don't expect us to provide your personnel and certify them."

Q: But, can't we see it as a joint problem?

FALK: What I'm saying is that we better come up with our own solutions because I get the impression from talking to them that we should not look at that as a long-term and a natural solution.

Q: We're not going to lean heavily on recommendations in that direction?

FALK: No, I don't think it is a viable way of going on indefinitely.

MILLIKEN: Might you get them to agree, though, to a five-year arrangement if you assured them that during the five years a certification program would be set up for your health people.

FALK: I don't know.

MILLIKEN: Do you believe that health occupations is a teaching field or don't you believe it? If you simply see it as an extension of home ec....If

you see it as a teaching field, then the burden is upon you to show that you believe that by getting certification for the teachers in that particular field. There's no use proceeding until you make a firm commitment.

FALK: To us it is a teaching field. We have, I think, at least two institutions that are interested in giving this a try. They have compatible programs on campus already. However, I think they need to go about it in a new direction. As soon as you people can tell us what it is that a person needs, then we'll have something to go to the institutions with.

Q: Mr. Falk, I'd like to address this to Helen Powers. In all of your years at the U.S. Office, are other states facing the same problem? Or is this problem in teacher certification in health occupations unique to Wisconsin?

POWERS: No, not in certification alone, but the teacher education programs and providing them is a major problem in the field, nation-wide. We only have a handful of Dr. Millikens in the nation. There's just a few places where they're really geared up now in preparing students. They do have students at the graduate and undergraduate levels. And we just wish that they were multiplied twenty times or more. Mrs. Saunders could send you a list of those other teacher education institutions. Or Dr. Kadish has a list out of his office.

Q: What about some of the programs funded by McKellogg, is your program funded by McKellogg too?

MILLIKEN: No. We're interested in maintaining the status quo of the professional fields, and we select those who will be committed to teaching. Our program was approved. We finally got the Vice President's approval last september. That was the last signature we had to have. One year later at the university we were talking about a graduate and an undergraduate program, specifically for health professionals, to get them the credentials in the education field. And that's all we're concerned about, getting credentials. I'm being facetious--we're really concerned about helping. We even have a project that incorporates the education with a health occupations person representing us - a person with a B.S. in nursing, a master's degree in vocational education, and she's working on a doctorate in education. So she is representing health occupations on this comprehensively based teacher education project.

The program has been approved nine months. We now have 24 people working toward a baccalaureate degree. That's how eager former nurses who want to go into teaching are to get that degree. Only nine months after it's approved, we have 24 people working on a degree. There are nine at the master's level. The reason there are only nine people at the master's level is that there aren't many people with a baccalaureate in Georgia. Out of 200 teachers, there are only about 22 who have a baccalaureate. So, I was brought down there to form a master's level program. I had to convince the chairman and the dean that what they needed was an undergraduate program. Then I had to do a survey of all the teachers to prove it to them. They had assumed that all these registered nurses had a baccalaureate degree. So in four-year high school programs and practical nursing programs, graduates of diploma nursing programs make excellent teachers--not all, I'm overgeneralizing. But, the graduate of a diploma nursing program is likelier to make a better instructor for you than the graduate of a baccalaureate program which is highly theoretical. Maybe the teacher will come out of the baccalaureate program and not be able to perform the tasks that she would need to do to teach her students. And this is also true to some extent of associate degree programs.

In the first workshop I had for new teachers, there was one associate degree nursing graduate in the group. I had the teachers working in small groups to try to develop a lesson plan. I'd structured it. I had given them a particular procedure around which the lesson plans would be developed. This person was making no input and, finally, one of the others in the group asked her a question and she said, "Well, how do I know? I've never done that procedure." They happened to be working on catheterization. She was a professional nurse and she had never done a catheterization. And, she had two years of work experience. As a practitioner she had always avoided doing it. She had never done it in school; she always found someone else to do it, I guess. The point is, nobody gets through a diploma nursing program without doing a catheterization. So, whenever a professional nursing group likes to knock a diploma nursing program--we do see some very excellent teachers who have come out of those programs. Fortunately, in the education field there's a three-year nursing program, a 36 month nursing program, with a 36 month teacher education program. These are the people I'm trying to get a baccalaureate degree for. It is a degree in education, not a degree in nursing. They've already made their career change, and the commitment is education now. And so we consider health occupations as their teaching field. I might add, we would take dental assistants, dental hygienists, and other health people, not just nurses.

Q: We have a gal right over here, a home economics teacher. Will you tell them what you did in order to get some work experience and a desired level of achievement in health occupations?

PARTICIPANT: It's a concern of mine, why can this go only in one direction? Only a health person can get education credits. Why can't an education person go out and work in a health field? Why can't it work both ways? I took the 180 program in nursing and worked for my 1000 hours as a nursing assistant. I took several very difficult examinations.

MILLIKEN: You're dealing with an alternative approach to it and this is a question vocational education has been wrestling with for a long time. Do we take a certain certificated teacher and try to teach him an occupation, or do we take a person who is an occupational expert and try to make him a teacher? I think vocational education made its commitment a long time ago in industrial education with, say, a machinist. Now how long does it take to make a machinist out of somebody who has a baccalaureate degree in a teaching field? Now essentially you're questioning the validity of health occupations as a teaching field. Now, you say you've taken a 180 hour course. That's one way to go and I'm not knocking it. I'm just raising questions. Now you say that as a teacher you're committed to the idea that you can get content in alternative ways. I would also indicate, though, that the depth of content of a professional nurse is far greater than you can get as a certificated teacher with the kinds of things you're talking about. 36 months--that's a considerable difference, and a medical technologist, of course that would be true there, too. The nurses that teach the high school programs have to do something of what you're talking about if they're going to do an exploratory program. They have to get outside of nursing. They have to take the blinders off, start learning about pharmacy as a career option; they have to learn about the medical laboratory in much greater depth than they needed when they were practicing as a nurse. They have to learn about veterinary medicine and the laboratory there, the laboratory research, and animal research. There's a two year program in that area as well as the veterinary medicine approach. The nurses have to broaden, but they have a belt of preparation as practitioners in one field and as deliverers of health services, as professionals. Now they may not meet professional criteria for post-graduates, but in terms of in-depth preparation, registered nurses function pretty much as professionals, by my definition. So you're saying that you're committed to the idea of taking a well-prepared teacher and giving some kind of occupational preparation. The alternative is to take someone with in-depth occupational preparation, and give them some instruction on how to be a teacher. Either way, it's two different worlds. I don't know any way to get the best of both. In either case, you are compromising on some conviction. You're either compromising on the professional education development, or you're compromising on the occupational preparation. And this is a decision each state has to make. In Georgia, the decision has been reached that we're going to have health professionals teach health occupations. And there were a lot of home ec teachers in Georgia who wanted to teach these programs, but they were not willing to do what you did. What they wanted to teach, you see, was a sort of home nursing approach, and this won't cut it.

TRANSFER OF LEARNING
HEALTH CAREERS EDUCATION
ASAHP GLOSSARY OF HEALTH OCCUPATIONS TITLES

When I learned I was to make a speech tonight, I brought with me some transparencies that are concerned with the problem with which you are wrestling. I brought them thinking that perhaps I would need them. The more I listened to all of you this afternoon, the more convinced I became that what I brought is exactly what might help you with your group work tomorrow. Marion has had this material duplicated for you. You can use the materials which she has run off for controlled note-taking, if you wish. I am going to run through the transparencies rapidly, with occasional brief comments. Next, I will show you an overview of a three-year curriculum for the high school that one of my students developed. We in Georgia have moved away from that pattern, which was really our first effort. Our thinking has changed. In fact, I think that each time you design a model, your thinking changes during the process of planning. Hence, this three-year curriculum is not exactly the model we'll be using in Georgia, but I think it can serve as a point of departure for your planning.

Before we look at the curriculum per se, I just wanted to very quickly run through these transparencies. I assume everybody is familiar with these terms that are now being projected (See Appendix A), a transfer of learning, and what we mean by lateral transfer versus vertical transfer. Does anybody want to raise questions on these terms? Or, perhaps the best thing would be for you to just look over this and ask questions when you feel the need. Maybe if you looked that over and had time to think about it, then you would have the questions.

I do want to emphasize some points about this next transparency, this matter of the educational ladder. From some comments made, I gather that you have some problems here that we do not have in Georgia, due perhaps to your administrative set-up. I do not know exactly what your situation is. The problem we have in Georgia with the educational ladder is primarily professional philosophy. That is, the rejection by the faculty at the upper levels toward granting advanced standing to graduates of the lower-level program, an associate degree program, for example. To obtain articulation with the baccalaureate degree program, one has to get that baccalaureate faculty to accept this philosophy of a ladder. For example, the graduate of a two-year program should come in with, maybe not two years of credit, but certainly advanced standing, and simply supplement what that student already has in order to obtain that higher level, the baccalaureate degree. We are being extremely wasteful of our manpower resources when we require people to repeat educational programs just because that's the easiest way to do it. It is easier for the faculty to say, "Oh, everybody has to start from the beginning." With a little bit of work, cooperative planning, and, particularly, curriculum revision, the two programs can be articulated so that advanced standing is possible for graduates of the lower-level program without the risk of them missing something important. By curriculum planning I mean that the two faculties coming together can: (1) identify what can be taught in the lower level program, and (2) measure whether the learning that occurred at that lower level was adequate for the upper level program. Then, if students who graduate from the lower level program want to enter the upper level program with advanced standing,

the faculty of the upper level program will have planned cooperatively with the other faculty. The upper level faculty know what the overlapping units are, they have a proficiency test, and it's a very simple matter of saying to the student: "If you feel you can perform in this particular area, we have the proficiency test, we'll give it to you. If you perform at such and such a level, then you will be given credit for that unit." The most restrictive factor we have in Georgia is that the statute - not the regulations, but the statute - for practical nursing, specifies the number of clock hours and also specifies one calendar year. So right now, practical nursing faculties are getting around this by giving advanced credit to those who can pass a proficiency test for certain units - a high school graduate of a health careers program, for example. They specify the advanced credit in terms of time. If they've allocated a week for a particular unit and the applicant for this practical nursing program can demonstrate proficiency by passing the performance test for that unit, then it goes on their record for the number of hours that unit normally carries. Credit is what the hours indicate, not time spent sitting in a classroom. At least this is what credit should mean if credit hours have anything to do with learning. There are ways of getting around certain restrictions, even when they're in the law. The law doesn't say that they have to sit in classrooms for twelve calendar months. It says the program shall be twelve calendar months. The restrictions specify credit in terms of something that adds up to twelve calendar months.

There are some faculties that believe in advanced standing for aides or graduates of high school programs and some faculties that don't. We are just beginning now to get some associate degree faculties talking to some practical nursing faculties about the issue of advanced standing. But the ladder concept requires cooperative planning by the faculties of the two levels of programs that are to be articulated. Of course, where institutional constraints or different administrative policies exist for the two kinds of programs, then you have to get some kind of administrative collaboration, too.

For your meeting tomorrow I would suggest to you that you abandon the word "skills". "Skill" is a very ambiguous word. It can apply to a psychomotor task. It can apply to an intellectual task. It can apply to social interactions. It becomes a meaningless word. But if you use the word "task", then you can define it the way you want. You can get to some manageable sorts of things around which you can plan a lesson or specify a learning outcome. Now these happen to be the definitions that I use: A job task is a basic unit of observation for analyzing the level of skill and the knowledge required for satisfactory performance. I use that definition for talking about a sequence of educational experiences as in a ladder or lattice program. We define task a little differently in the course called Performance Specification. We are doing a job analysis. In this course we do a job analysis, trying to identify the task, the related information, and the other related factors which make the difference between effective and ineffective performance on the job. We even separate task from principles. Those of you who have been in nursing or have seen nursing procedure manuals may be aware that in the past, step one in these procedures was probably, "Check the doctor's order;" step two was probably, "Assemble all equipment needed;" and step three might have been, "Identify the patient." You go through all of these procedures in the manual, knowing there will be pages and pages and pages of them - I've seen manuals that were 500 pages thick - every procedure has those steps listed. I can remember when I was a student

saying to myself, upon receiving a new mimeographed procedure to learn, "Another one!" When I looked at it, it had 92 steps. There was no information in the procedure. It was strictly a Step One, Step Two, Step Three thing and we were supposed to memorize those steps and be able to go through them in a precise sequence, no change in sequence, no omissions, and what not. That was not a very good way to present that much information. In fact, it wasn't information; it was steps with information thrown in. Some of the steps really consisted of, "Be sure to remember so and so." It was really information rather than a step in the task. I have my student teachers separate out principles which apply to the performance of all tasks. I urge them to have their students learn the principles and to learn them thoroughly. Then each time we take up another principle, all they have to deal with as new information are the steps of that specific procedure. Once they learn the principle thoroughly, each new procedure involves a manageable bit of new information instead of another one of these 92 step things which tends to be rather overwhelming. Task, then, you might want to define according to what is workable for you. Whatever kinds of units you decide to deal with tomorrow, settle on a definition. Otherwise you're going to be using "task" to mean one thing, while somebody else in your group is going to be interpreting it to mean something else. I find that it's easier to plan if we talk in terms of tasks and knowledge related to those tasks. Then one can discuss some of the other things that are just as important but are not as easy to grasp, such as the observations to be made, the interpretation of those observations, the interpersonal aspect, and the concern with the quality performance, etc. We may then ask: Was it effective?

In setting up a course, I would suggest that you give careful thought to whether or not you even want to have entry requirements other than the student saying, "I want to enroll." You're likely to be making a decision for somebody else who can't come into the health field if you say, "You can't come into this program." I question whether teachers have that right. Maybe the student who says, "I want to explore the health field," or "I want to learn to be something or other in the health field," has the right to at least find out whether it's for him. I'm not real gung ho about listing all of these requirements that you're going to set up - obstacles, I call them - for people to even get into the program. This is more appropriate to people at the post-secondary level. I often hear practical nursing faculties saying, "Well, we had 190 applicants and we only took 30." What were your reasons for taking that 30 or for not taking the ones you didn't take? At the high school level what would be your reasons for not accepting a student? I don't know if the counselors will be referring the students to you or whether any student who wants to enroll will be able to enroll. But how are you going to handle that? Somewhere along the line you have to make that decision. Is the program going to be open to anyone who wants to register for it or is it only going to be open to people who have had your permission? Really, all of this has to do with management of the program rather than designing it. And, you are going to be talking about design tomorrow.

On the screen now is the cover sheet for the health careers curriculum which was developed by a registered nurse, a graduate of a three-year program who is teaching her third year of a high school program. This nurse has proven to the Georgia State Department of Education, in spite of a lot of skepticism down there, that such a program can function in an isolated community. She's had to get out and really scurry to find some clinical experiences for these students. I believe the community hospital was one of about 50 beds. There is another small community hospital in an adjacent

county. There are child care facilities. She contacted all of the clinical offices in the area and the public health agency. Then she screened an advisory committee about a month ago and got them to scout around the counties to find some more spots for her for the next year, so she can give her students some limited clinical exposure. This nurse is one of those graduates of the diploma program that I was saying had proven to be so successful in our particular program. This was developed, just for her, to present the program to the post-secondary teachers that we're trying to win over. They saw this high school program as very threatening: "What are they doing down there? Are they trying to teach practical nurses?" So we had to interpret the high school program to the post-secondary people so they wouldn't feel so threatened. This curriculum has been designed as a three-year curriculum. Over that three-year period we hope certain things happen. One of those main outcomes that sets the framework for your total planning is that students who go through this program will be prepared to make that first tentative vocational decision. Most students make such a decision as they get toward the end of high school. But how valid is it in terms of their interests, their sources of satisfaction, their strengths, their weaknesses, their personal attributes and their career goals for the future? So much of the program content then is related to this study of self, study of occupations, study of those jobs which have many commonalities and which we, therefore, refer to as a job family. This matter of goal setting is something that can be learned. We talk about students' goals. I'm not too sure that anywhere in the educational process we really help youngsters learn about setting goals and how much more likely you are to get a reasonable dividend for your investment of time and effort if you have a goal or purpose so that you don't go off on tangents. Goal setting is a process of thinking through; "Where do I want to be five years from now?" Whether you're talking about short-term goals or long-term goals it still is a thinking through process. It helps to decrease the possibility of spur of the moment, impulsive kinds of decisions which don't have a very high validity. These, then, are the more specific kinds of outcomes related to this very broad sort of outcome of being well prepared to make a rational vocational decision.

I would comment to you that the studies of vocational decision making over the last 15 years have indicated that vocational choice is a developmental process rather than a point in time event. The vocational theories of the '50's and '60's really are the philosophical basis for the whole career education movement.

The recognition was that young people today need help getting information about career opportunities in the real world. Youth need this help because some ninth graders are being given a form, maybe a little booklet, and are told to plan their high school program. So here is an eighth or ninth grader and he's supposed to lay out all these courses that he's going to take for the next four years. Those courses may make the difference between doing what he wants to do the fifth year and not doing what he wants to do. So there was increasing recognition that youngsters need to be prepared for that time when they're told to make a decision of where to go next; to make a decision about what kind of high school curriculum you're going to embark upon. Much of the career education movement, then, is based on recognizing that youngsters need help with this process and that it should be an educational kind of experience. Parents today are not much better prepared to inform youngsters about the broad opportunities in the world of work than are the youngsters themselves. So career education has become a part of the educational process.

With the self study and the vocational information component of it identified, let's take a look at what we see as a broad overview of career opportunities in the health field and how that should be provided. We're talking about exploratory experiences which would include the 10th, 11th and 12th grades. We are not starting this at the 9th grade in Georgia, although it is being started earlier than the 10th grade in many states. As far as exploratory experiences are concerned we're talking about actually getting them into clinical areas within community settings to observe workers on the job. Not just to sit there inert or to stand in the corner and to watch, but to follow these people around and to participate in a limited sort of way in what goes on or what that worker does all day long. Of course, if you can arrange to have a student observe a particular health worker for a whole week, then he has a pretty good idea of what that particular kind of worker does in his job. After that kind of experience, this youngster should be fairly well prepared to make a yes-no decision in regard to that particular job.

Then, of course, interviews, presentations, and actually participating in the delivery of health services are strategies by which the youngster explores the various occupations. I would emphasize here that interviewing is a skill. If you will, communications, interpersonal relations, and strategies for collecting information are a few of these skills. So, interviewing needs to be a learning experience. Once it has been learned, it becomes a tool the youngster can use to collect information about jobs.

In the skill development area, what we try to focus on are two types of job skills. As I'm using skills here I'm talking about task performance in which related information is brought to bear on the performance rather than just psycho-motor skills. We're talking about the common kinds of skills or skills that are common to several jobs. Someone mentioned blood pressure this afternoon. If you analyze a number of jobs, even entry level jobs, you'll find that a large number of health workers need to be able to take an accurate blood pressure. The ambulance attendant, the nurse's aide, the office assistant, physician's office assistant, the certified laboratory assistant, any of those, is likely to take a blood pressure every day on the job. The laboratory, of course--if that particular assistant goes into the blood bank, he'll be taking blood pressures off and on all day. So there are at least four jobs where the taking and recording of blood pressure is almost a daily job skill. How can you question that this needs to be taught in any program related to the health field? There are many common elements where we find several jobs that have a lot in common. These common elements we classify as a job family. We develop 69 learning packages around four jobs which have many common elements. Consider the jobs of the laboratory aide, not the clinical laboratory assistant which is a one-year post-secondary program, but the laboratory aide, the ward clerk, the nursing assistant. We use that term instead of nurse's aide, and the office aide. If we develop 69 individualized learning packages using just common skills of those four jobs, we barely begin to scratch the surface. We simply ran out of time to write learning packages. Each job also has certain unique elements. To fully explore a job, the learner needs to deal with those unique elements. The ward clerk, for example, in transcribing orders, has a tremendous responsibility for accuracy. She also has the challenge of reading a doctor's handwriting. It may be that one day only ward clerks and pharmacists will be the only people who will be able to do that!

Now moving on with the curriculum, this gives you the overview for the three-year curriculum. The first year is divided into three quarters for

which the general outcome is that the learner will have an overview of the total health field, that is, all of the career opportunities within the health field. The second year gives two options: job/family skills or the skills of several related jobs. The graduate of this first year program, with the teacher's approval, could go into a co-op program. Essentially the co-op program means the youngster's school day of six periods is divided into three hours of academic work, one hour of course work with the co-op teacher and his related instruction; and his other two hours of the school day would be spent at a particular job. In addition to the two hours of the school day that he's on the job, there would be some after school hours for which the learner would receive pay. All the time the learner spends on the job is for pay including the two hours of school time. In the job situation, the supervision of the learner is co-operated between the coordinator of the program and the employer. A co-op program is exactly that: cooperation between the employer and the school to provide learning opportunities. In the third year there is the option as we laid it out. We are now thinking differently about having three options instead of two for the third year -- right now the co-op program versus full-time job placement without supervision from the coordinator.

Now let's look at a little detail on the first year. That, you'll remember, was an overview. It is an overview of the health field with these kinds of strategies being used. As it happened, we used this matter of taking blood pressure to illustrate the large number of jobs to which that particular task applied. And that is a task by my definition. The physician takes blood pressures, but he has approximately eight years of education to become a physician. A nursing assistant who takes blood pressures may be a graduate of a three year program or may have had on-the-job training. Yet, both of these people will be taking blood pressure and hopefully taking it with accuracy. So that gives a good illustration of some common tasks which can be learned at the high school level and shouldn't need to be learned in an advanced program.

The second year program, as Shirley was thinking when she developed this, should lead to job placement if the student is a senior. If the student is a junior in the second year of the program, then she feels the student should have the option of an in-school program or a co-op program. I can't remember what the third option is. The student would have a clinically oriented program or a co-op program. By a clinically oriented program she means an in-school program with clinical experiences, but the student would be in her class two hours out of each day. She would then plan some clinical experiences so that it would not be entirely an in-school program. The alternative to that would be the co-op program which would have one hour of related instruction to a particular job. In that class, in that one hour of related instruction she would have students placed in ten different jobs and then her challenge is to relate instruction to the problems that the learners are encountering on the job that are of mutual concern.

In the in-school program she gives instruction in some advanced skills. The first year she plans to teach just entry level skills. In the second year she begins instruction in more skills. This is where she emphasizes the clinical practice as part of the training. It should be emphasized that these advanced skills come from a variety of jobs. They do not zero in on a single job. Instruction in advanced skills from a job family increases the possibility or probability of employment. Remember this program, as she designed it here, is located in a rural community where there's only a small community hospital.

This is an admission restraint that we've set up. In a way it is relevant to those transparencies I started out with earlier. We have five co-op programs going in Georgia--pilot programs. It's part of a program funded by the Georgia State Department of Education. All but one program has been set up with the admission requirement that the student must have completed the first year in-school program. That is, before going into the co-op program, the student must have developed some of these entry level skills. So, they have something to offer. There is something they can do. They're productive the first day they're on the job that has been selected as part of the co-op training.

One program was set up in a metropolitan area on the fringe of Atlanta. The co-op teacher had to find work stations within that community, but had to take students who did not have any in-school preparation for health. That teacher is resigning because she's had it. This matter of trying to find the job stations, trying to get students ready to work in a lot of different job stations, plus her anxiety about whether they were ready, might do something inappropriate, or do something unsafe, has been too much for her. On the basis of her experience and the problems she had, we're pretty well convinced that one year of in-school preparation is highly desirable to precede the co-op program. The teacher of the first year program has to recommend a student before the student is accepted into the co-op program. At this point we're beginning to set up some constraints about who can go into the co-op part of the program. The health careers education program, the first year as a whole, is open to anybody who wants to enroll in it.

QUESTIONS TO ELIZABETH MILLIKEN ON
 "TRANSFER OF LEARNING"
 "HEALTH CAREERS EDUCATION"
 "ASAHP GLOSSARY OF HEALTH OCCUPATIONS TITLES"*

Q: Could the exploratory program be combined with entry level skill development in the first year of a health occupations program?

MILLIKEN: Probably so. There are lots of ways to design it. We prefer to have the first year be an exploratory period. If you do what you are suggesting, students will have to make a decision about which careers to explore and then go into a job station. We try to have them explore a minimum of four different jobs before making their choice for a job station. That occupies the whole first year. Everybody is free to design it however they wish, and the way that you're talking about could be done. We just happen to prefer the other.

Q: After the first nine weeks of a double period, our students go into the hospital or into a nursing home for three or four weeks and the last nine weeks they select whichever station they wish to spend the final weeks in. This is a one year program, but it's a double period.

MILLIKEN: Right. That's another way of designing it and it's perfectly valid.

Shirley has nine job areas in the health field individualized and has modules developed. This gives a student nine options. At the time she developed this plan, that's all she had time to develop. I think she has about 15 job areas now. The students can study specific jobs or specific tracks through an individualized approach and part of their study is collecting job information. Then she requires those who stay with the program the third year to do an in-depth study of at least three jobs. You can use those same nine jobs and have less depth and explore in a quarter of a semester, if you wish.

Q: Does Georgia have these extensive career education programs throughout the whole school system from K-12, or not?

MILLIKEN: How extensive it is, differs from school to school. Some schools are fully committed to career education; others are doing a little bit. We have quite a few different programs that hit at particular problems. There is a middle school program that is largely oriented toward disadvantaged students, for example. That is a very extensive effort to coordinate some career approaches with academic subject matter. It's really an effort to make the learning of academic matter relevant to occupational concerns of students.

All of the high schools are using what is called "place system". The first year, we develop 69 individualized packages related to entry level skills. Since then, teachers have written another 50. This hasn't been an intensive effort. They have been written by teachers and shown to me or they were done as course assignments. They were good, so we thought they

* In an effort to economize space and to include comments that may be helpful to teachers setting up a health occupations program, some questions and answers have been shortened or deleted.

were worth disseminating. We reproduced them and sent them to the high school programs in Georgia. We now have about 140 individualized packages related to job performance requirements. The nine modules I mentioned here were developed by the teacher who laid out this overall design.

PARTICIPANT: There would be enough material to be learning on an individual basis and there could conceivably be nine little cycles going on within the same room.

MILLIKEN: That's right. If you have individualized materials, then, of course, the teacher is managing the situation and only interacting on a one-to-one basis or on a small group basis with those who need some help from her. But where a module exists and there are sufficient resources, students can do a great deal on their own. So in this particular person's classroom, you may find nine or ten groups of students at various places in the room working together and some students working independently. A lot of different things are going on, so it is literally a management kind of classroom setting.

Q: These are tasks common to any one of those nine areas. Now let's take as an example, the job of medical laboratory assistant. How many tasks would there be for that particular job?

MILLIKEN: I couldn't give you a figure on that. I do have a very extensive inventory of tasks, that came from the UCLA Project. That project did a job analysis on certain jobs. You could get practitioners from a particular field to take that task list and check those you would be willing to have an aide in your laboratory perform. This is actually how we got the tasks for the four jobs that I mentioned earlier. We developed the initial 69 learning packages in this way.

Q: Is this available?

MILLIKEN: We have not reproduced it yet. We're working on a manual and a matrix which we hope to have available by September. We don't have a project team working on this. Teachers are doing this on their own time, and sharing it with me when we have an opportunity. It's not a major focus of anybody's responsibility. We're just trying to get it together. Now, take these particular jobs. I would suggest that rather than our findings in Georgia, perhaps you need to conduct a survey on a regional basis for the State of Wisconsin. You could take the task list from the UCLA Project. Your health people could indicate tasks to be on your survey, very quickly. Again, here, it's a big advantage to have a content specialist to do this.

I would suggest to you that any registered nurse could run down a list of tasks for you. The only tasks a registered nurse would have to get some help with would be in the areas of dental assisting and medical laboratory assisting. This is one of the reasons why registered nurses are being used so extensively for teaching these programs. The registered nurse has been, in the past, the generalist of the health field. The nurse's role is being fragmented today. Then you should identify potential employers in your region. Ask them to go through the list and indicate which tasks they would be willing to have you teach a high school student. Have him indicate which tasks he would permit the graduate of that high school program to do without any further training. Those tasks he checks will provide you with the nucleus for planning the content of your program. It also involves the potential employer of your graduates. It gets them concerned and interested in your program. You know what it does to people's willingness to support you if you involve them in the planning. Let them feel they've helped to make some

decisions. It gives you information and it's good public relations, too. The tasks that are related to these jobs would also transfer to those that are less....Oh, another factor.

Incidentally, these nine jobs represent the jobs for which the greatest number of workers are needed. Some kinds of workers are developing today which are used, but you don't need very many of them. It would be hard to justify setting up a class, unless you do it as a one-shot kind of thing or perhaps, offer it once every two years or something like that. You may want to have a cycle, where you hit some of these jobs in areas where you don't need quite as many graduates, at regular intervals rather than continuously.

Q: Are you saying that you train high school people for those jobs, or that you just explore them so that they might go on to further training?

MILLIKEN: There is no legal requirement on any of these job titles. For instance, anybody can get a job as an ambulance attendant.

PARTICIPANT: But they must have special courses that they have to complete.

MILLIKEN: Now are you talking about an EMT? Now in most states, a totally illiterate, strong-bodied man can walk into a funeral home or an ambulance service and get a job as an ambulance attendant.

PARTICIPANT: Well, an ambulance crew came to talk to my class, and they said that's no longer true.

MILLIKEN: Well, for the EMT's, that is true. There is a move under foot to require training. Now the Georgia law goes into effect, I believe, this January 1st. We're supposed to have 3,000 trained, certified ambulance attendants ready by January 1st. But a dentist can employ anybody he wants and call her a dental assistant. There are no restrictions. She cannot call herself a certified dental assistant unless she has passed the certifying examination. But a person can go in tomorrow and ask a dentist for a job, and if he wants to employ that person as a dental assistant, there's no restraint on him. Isn't that right?

PARTICIPANT: Absolutely right.

MILLIKEN: Well, we're talking about a high school program. A physician can employ anybody he wants, to work as a medical assistant in his office. There are no statutory restraints in Georgia or North Carolina for these, other than what is emerging in the ambulance attendant program. Most of these people in the past have been trained on the job. Now, there was a time when the surgical technician was a registered nurse who chose to work in the operating room. And this job just sort of evolved as the shortage of registered nurses developed. Some aides kind of moved into the surgical technician program. So most of these have been on-the-job training situations that are now getting formalized. And now the pre-employment programs are developing. I guess the next step is for some kind of constraint on just who can work in these positions. But that's part of the evolutionary process, isn't it?

PARTICIPANT: Some of these health facilities are really hurting because they can't have people right out of high school. They must have people with training and there aren't that many people who have been trained. And that's why the health facilities in our community are interested that we direct students toward health careers. I think we'll find we have to be very sure to be careful of Wisconsin law because I think there are statutes here that differ.

MILLIKEN: As far as I know you only have three statutes that specify....Now hospitals can have policies and professional organizations can develop positions, but the professional organizations usually have a vested interest in protecting their field. So that's not a constraint on what you can do. That's a matter of a professional organization's position on something.

I'm not talking, right now, about fully preparing anybody for these jobs, although a student could elect, for example, to learn all she could about the hospital ward clerk's role. But we're not saying to any employer, we are producing for you a fully prepared individual. We're saying, we have a person with these entry level skills. And it's the teacher's responsibility to convey to the student and to the employer just what the limitations are. In a co-op program, the teacher must indicate exactly what the student has had in school and what proficiency tests have been passed.

I would hope that you people would be planning to set up an advisory committee in your local communities. Have these people help you with your decisions. If the hospital in your community already has an on-going training program and a full-time training director, it's quite possible you don't need the program in the school in that community. The school setting gives you the opportunity to do basic teaching economically, and the hospitals or other employers can then build on that in a one-to-one or one-to-two basis in a job setting.

I would suggest you go very easy with job titles and that you may not even want to use job titles. Rather, speak in terms of competencies, competencies such as observing and recording. For instance, a ward clerk in hospital A, may be called a ward manager in hospital B and the duties may be the same. There is no standardization of job titles in the health field, particularly in the less than baccalaureate level jobs. You're going to get into a lot of difficulty if you use job titles. Each employer will be reacting according to his concept of that particular job.

Now, I've tried just to give you an overview of one approach. That's only one of an infinite number of possible designs that could be set up. I would agree with you that you people do have an obligation to know what jobs do have statutory constraints. I would suggest to you that the reluctance of any professional group to approve of your high school program is not relevant unless they are the employers of your product. Professional groups have the right to say what they would like, but the really important person to tell you what this program should be, is the potential employer.

In fact, employers are probably going to be saying to the schools pretty soon, "Why aren't you giving us some help in training all these people we need?" So you see, it's not a constraint, it's an indication of a need for the program. Now I would agree with you that teachers must know statutory constraints, not only in the health field but in the educational field, and that the legislation has to be a body of knowledge that you are very familiar with, as it impinges on your responsibilities and how you do your job. I don't think this is a concern nor actual content for your program, other than in a general kind of way. I think this is part of the teacher's professional responsibility.

I did not present this model with the idea that this was the way for you to go. I'm not convinced that a single model is really the answer even for one state. I think that within a certain framework, each teacher has to design her own, which means getting input from a lot of people in the community; health professionals, potential employers, and educators particularly. So that's all I have to say, and I should think you people would be exhausted at this point.

A PANEL PRESENTATION: LOCAL
PROGRAMS IN HEALTH OCCUPATIONS
TRAINING
MAY 17, 1974

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STRAUSS: What I'm going to do, is tell you about the funded health occupations programs that currently exist in Wisconsin. Until six months ago, all of the wage earning programs in health occupations were lumped together. And then a few months ago, they tagged a different number on them, or a different letter, and they came out separate -- those that are identified as health occupations. After I had compiled my statistics, I realized that those that were identified as institutional support services were really health occupations also. But by that time, it was too late to include them in the group. So these are only the programs that are health occupations because this is how they were identified.

What I did first of all, was to identify the qualifications or backgrounds of persons currently teaching the funded health occupations programs. Ten of them are handled by home economics teachers, seven of these have work experience in the health area and three do not. Now the one that's specified here; "certified in health in Minnesota" should actually be a separate item because this is a separate category. Five individual programs are handled by a home economics teacher and an RN jointly. In two other schools, the home economics teacher brought in a senior student nurse who's a senior at the University here at Madison. In these schools they bring in a different student nurse every nine weeks, each quarter, because as seniors at the University, the girls are also earning their bachelor of science degree. They take a leadership course and are allowed to choose the field that they would like to work in. These girls have chosen to specialize in public health. So they work with the schools. In another case, the school nurse who is an RN and has an education background as well, is teaching the course. Of course these are choice arrangements, but they are a little bit scarce. In five cases a VTAE staff person is teaching the course. Sometimes the students go to the vocational technical building. Sometimes the staff member comes to the school. In another case, an RN and a paramedic, who has a health and safety education background and work experience in that area, teach the health occupations program. Teaching in another program is a guidance counselor, who has a health education background. In one case, research people are doing the teaching, with a person who's coordinating this, along with a home economics teacher and an RN. And in another school, a speech therapist who had work experience in a hospital situation does the teaching.

Now, what about the size of the schools? Sixteen of these have populations of over 500 students. Four are under five hundred. Nine schools have cluster programs where you might find two in the cluster, or sometimes as many as five schools.

How long have the programs been in existence? Eight of them are first-year programs. Seventeen are second-year. Three are third-year and two are fourth-year programs. In one or two of these cases, the three-year programs had a year of pilot testing in a small segment of the community or one school, as their first year attempt. I have included the institutional support services here. There are actually three: One's in its second year, one in its third, and one in its fifth year. The length of the programs varies. Nine

of them have just one semester, offering it each semester with two different groups of students. Eleven of them have two semesters, and in one case, that second semester is optional. In other words, students may take that first semester and then may not go on to the second. At this point there are several schools which are planning a second year for their programs, but this current year, none of them has a three or four semester program. By next year some will.

How long are the students spending in the health occupations or in health career courses? Here again there's a wide range. Two of them offer twelve and a half hours per week, which would be two and one half hours per day. Now when I'm saying hours, I mean class periods. There's a variance here; I didn't get it down to minutes, so they could be from 40 to 55 minute periods, but I say an hour. Eleven have ten periods per week, which would be two periods a day; one has nine; thirteen have five; and two just have three periods per week which would be three days a week. Eleven programs require two hours of work experience per week.

How many students are involved and what is the composition of the classes? As you can see, boys are in the minority, but they're in there. And we're pleased to see this. The break-down, as far as classes are concerned, is 540. Most of these are seniors, but there are some sophomores and many of them are juniors.

What are the types of programs? Eighteen are classified as career exploratory and in six cases they consider one semester exploratory and the second, "capstone." Four are co-ops or "capstone" and four are paid work experience in nature. Of these, four are receiving remuneration--some would be in each of those other two categories.

I thought it might be of interest to know where the instruction is taking place. Anywhere from 10 to 100 percent of the instruction is taking place in the schools, most frequently about 50 percent. And where else does the instruction take place? In many of these places, districts are taking advantage of what is available in the community to the very greatest degree, I felt, so that sometimes the community has offered facilities where students have instruction in the hospital, or in an army home, or somewhere they have room. The students are taken there for instruction for a good portion of the time. As to the types of hospitals, all kinds are being used. Laboratories: When we say laboratories we mean not just laboratories in a hospital, but research laboratories of a medical or bio-medical nature. Special centers: Most of these care for disturbed children. Alcoholic centers: I'm sure there are a few other facilities which I did not list. Clinics: There are various kinds, as you can see. And then, of course, there are the special departments in a hospital. Sometimes the students are taken to the same hospital six times in succession. Each time they visit, in a concentrated fashion, one particular department. Or they are broken down into small groups and actually work with a person in the hospital in areas such as geriatrics, pediatrics, medical records, or in the emergency room. Experiences include visiting special schools for the deaf, physically handicapped, physically disabled, the blind, sheltered and curative workshops, blood banks and ambulance dispatch departments. In some cases, a student has ridden with an ambulance driver for one or two days or whatever might be part of their program. Some groups have visited mental hospitals, geriatric hospitals, McCartel Laboratory which does cancer research, neurological rehabilitation centers, nursing homes, and technical schools. It seems to me that in some of the programs, the students go to the technical schools and sit in with the students who are actually in post-secondary programs for a day. What fine exposure this is, as far as the

variety of health careers they could move into at this level. And at the same time, of course, they are communicating with the students who are currently enrolled.

This may give some ideas to some of you who want to expand your programs. In no way did I count up the schools that included all of these, but I would say the top six or seven here, were included in most every program. Medical self-help, first aid, medical terminology, body systems and specific occupations are some of these. Now sometimes, these were related. They studied a body system, and then looked into all the occupations that were related to that body system. Sometimes they looked at occupations and studied them from the angle of future employment in such areas as personal hygiene, asepsis, world health problems, sanitation, human relations and communications. I would say that at least one of the following was included in almost every course: Environmental health, nature and hazards of specific careers. I think this has some merit. Health careers are always pictured as being glamorous and I think some of the teachers felt their students should see all sides of this. They were exposed to procedures of locating a job, career advancement, rehabilitation, mental health, common health problems, child abuse and meals on wheels programs. You can see the areas included in the curriculum are extremely varied.

What's granted to the students? In two cases they each received nursing assistant certificates. In the institutional support programs, I believe in all three of those, they each received a nursing assistant certificate along with three first-aid certificates.

I wouldn't say that I've drawn any conclusions, except that the general feeling was that the wider the exposure, the more successful the program. I think this goes without saying. There were 34 programs that were granted funding last Spring for this current year. In only four or five of these, previous programs did not exist. In some cases the teacher was not certified. In other cases the teacher left and they could not find a replacement. In one, the program began the first semester but was dropped because of student apathy. And in view of this, I would say that those who felt that the program was not going well, or was not strong, or was not appealing to the students--it was actually a lack of stimulating facilities which discouraged the learners. It may have been due to the lack of screening on the part of the students. By this I don't mean academic screening, but screening as far as career objectives are concerned. Did they really have a sincere interest in this area, or were they just placed in there by the guidance person because it looked like a good course to stick some poor boy or girl whom they didn't know where to place? This, by the way, was a complaint in a few cases and in some schools, I think justifiably so. Thank you.

SPEIGHT: I think you're going to find me telling a little different story than Margaret does because I'm going to tell it from the viewpoint of local perceptions. We got rather curious a while back as to what really was going on in health occupations in the secondary schools in the State of Wisconsin. We decided that the best way to find out was to ask them. And I think you're going to see from here that local perceptions are frequently different from the perceptions that we hold here in Madison or at the DPI. I think that perhaps, in the absence of guidelines, all sorts of things do go on. But the yellow sheets that you have been given are actually the contents of what I'm going to discuss. You can follow along if you like or you can follow on the overhead.

The questionnaire consisted of a series of seven questions. We were really trying to get at the level of health occupations training in each school with the results that the first six questions started out with: "We don't have anything," all the way up to "We've got a full-blown 'capstone' course. We're really doing a bang-up job here, and have health occupations training at an excellent level." The next question was, "Are you interested in either starting or upgrading in health occupations?" So the questions in order, or rather the statements to which the schools needed to reply (and we hoped that they would check each one in order until they got to the point where they didn't offer it any more), were, first of all: "The school offers no health occupations information, guidance or training." They've got nothing. The second one they could possibly check, was: "Guidance department provides information on health occupations careers on an individual basis, as needed." If a youngster is interested in doing something in health occupations, he can go to the guidance department and get a little bit of information on it. He could maybe get a field trip or two or something of this nature. The third one was: "Health occupations information is provided as a unit in a course which may or may not be related to health occupations." You know that there are a lot of these career ed. courses around in which they have one unit which is devoted to health occupations. We wanted to find out how many of these things were being run in the State. Then we wanted to know next whether they were providing some sort of a health occupations survey, and if they were, how they were providing it. Then the next thing we asked them was: "Are you providing some sort of a health occupations survey, and if they were, how they were providing it. Then the next thing we asked them was: "Are you providing any kind of a work experience situation?" We didn't care whether it was attached to a "Capstone" program or not, but were these students actually going out and working someplace? That's going to be rather interesting, I think, when we get to it. Then the last one was: "Are you giving a "Capstone" course, and if so, what do you call it, and who's teaching it?"

It was rather interesting that out of the 382 high school districts in the State of Wisconsin ... Now let me explain. There are 436 school districts in the State of Wisconsin, but there are only 382 districts that operate high schools. But there are multiple high schools in some of those districts, for instance in Madison, where you've got four high schools, and of course Milwaukee has many of them, and so on. We're interested only in high school districts. So out of the 353 respondents, or a total of 92 percent, we got this as the breakdown at the various levels. In other words, what we did was to say, five schools checked only question 1. Really 105 checked two because we assume in each case that this is the highest level that they have obtained. If they have a health occupations survey, they probably have some of these in there too. Or if they have a "Capstone" they really ought to have some sort of a survey course. So this is the highest level checked by the individual school. I think you're going to find that some of this falls apart, too, because we have several cases where schools claimed that they had "Capstone" courses in health occupations, but didn't have any survey courses. That was rather interesting. The next thing we did was to break out those schools that indicated an interest in either upgrading or starting a health occupations course and we did the same thing because we said alright here are 171 schools that indicated interest in either starting or upgrading health occupations. Well that's fine and dandy, but where are they at this point in time. It's rather interesting that the more they get into it, the more they seem to want to upgrade. I think that once

they get their feet wet, then it begins to make some sense and they begin to want to do more with it, particularly if they have had a successful program. Then we begin to break out the questions themselves in terms of where the information was being supplied to the youngsters. In other words, which were the courses that contained units on health occupations career information? This is a rather interesting breakout because they're saying they teach a unit in health occupations, for instance, in English and Communications in seven schools and in Social Studies in sixteen schools although there were thirty-seven health occupations or career courses that contained course units in them. But I'll show you later on that there are a total of forty-nine schools that claim they have "Capstone" courses, but we only have thirty-seven that have courses in health occupations or careers. I thought that was kind of interesting.

Here we got into the areas in which a Health Occupations Survey Course is offered. In the health occupations sequence we now have a little different answer. We're up to forty at this point and we've got eleven of them in home economics. But here we go. We're teaching a health occupations survey course in Biology. We're teaching career education, I think that's alright, but in English. I have a little trouble relating to that, I'm afraid. The same way with Social Studies, although I can see a closer relation in that. I can live with Biology or some other science. I think that has some relationship with health occupations.

Then we go to the schools who are offering health occupational work experience. We asked for a sub-breakdown in this question. For instance, do you grant credit for that work experience or don't you grant credit for it? This first chart says that there are ninety-seven schools that let their kids go out and gain work experience but offered no credit. A kid in most cases goes out and gets his own job and does his own thing. We also asked the sub-question of: "Who supervises that youngster as far as the school is concerned," because there is a law in the State of Wisconsin that says that a youngster shall be supervised by a certificated person at some point in time. We've got nineteen schools that were rather candid in saying that we don't bother to supervise them. We've got twenty of them that say that we have health occupations or career coordinators people watching over them; nineteen of them, counselors and twelve of them, LVEC's. I think that those are all probably pretty legitimate. I could stretch it out to the principal, but again I have a little trouble relating to some of these other areas as far as watching over youngsters in work experience for health occupations.

Now we get to those schools offering work experience in health occupations but who grant work credit for it. Here are the schools that grant credit ... no, the other way around. The other one was granting credit, these are the ones who do not grant credit; and notice the people who supervise youngsters in here. I should be candid, too. Of the thirty-seven at the bottom, their supervision is not indicated. So here I cannot say that they're not supervised. I can only say that the schools didn't respond as to what they're doing. Then there were another seven schools that told us that they let the kids go out and get work experience, but they didn't indicate whether or not they give credit for it. But there is a total of 174 out of 352 schools responding that are granting credit for work experience in health occupations. So we really don't have very much of a handle on that or very much of an idea of what is going on. All we know is that they're probably going out to the local hospital or something of that nature.

Getting back to a point that was made yesterday in some of the speeches, if there's a job out there, somebody is going to fill it. These kids are out there on those jobs purely and simply because somebody is willing to hire

them. I think it's up to us to make sure that when these people get out there, that they are in fact trained. Let's make sure that people who are out there are trained because, after all, they are dealing with people. Because if we don't train them, they're going to go out and work anyway.

The last question, of course, dealt with the "Capstone" courses, and I have a slightly different story to tell on this than was told earlier this morning. We have forty-nine schools that report that they have "Capstone" courses. I think that in all fairness that what has happened is that Mrs. Strauss has picked up those schools that are currently registered as having "Capstone" courses. I think from our discussions over the last couple of days, we've found out that there are some schools that started out with health occupations courses a while back and then backed off and didn't send in their applications again. This is something we're going to have to dig into because the law says that once you've got a funded course and there's federal money in it, you must keep reporting. I think that we're going to have to go back through and ask them to give us a report to tell us what they're doing even though you're not getting any funding now and you're not requesting any funding.

I think this pretty well ties together the information that we got. I think that it gives you a little bit of an idea of what local perceptions are. I think they're considerably different from our's here in Madison. I'm not sure that everything that's going on out there is bad. If I give that impression, ... far from it, I think that there are a lot of these things that are very good and that they're building into their schools responses to local needs. This is really the key to what we're talking about in all of this. If we are going to build any kind of a health occupations course, then, it should be in response to a local need because there isn't much point in having a course in a local high school to train some kind of a person in health occupations if the nearest place they can get a job is forty miles away. They simply are not going to be able to get that job because the cost of commuting, at the salary kids can get at entry level jobs, won't allow them to do it. Thank you. (See Appendix B)

THOMPSON: My purpose for being here today is to describe the Inter-Urban Health Careers Program that's taking place in the Milwaukee area between three school districts: The West Allis, West Milwaukee Public Schools, the Milwaukee Public Schools, and the Waukesha Public Schools. This started out at an LVEC meeting up at Kohler Inn when three of us were riding from that conference back to Milwaukee. Dr. Markesan, from the Milwaukee School District, and I had been discussing possibilities for cooperating in some area of vocational education for some time and it happened that the LVEC from Waukesha, Dick Johnson, was with us at that time. He wanted to become part of it, too. We discussed the possibilities for entering into a cooperative arrangement between school districts without going through CESA. We decided that the agency that seemed to have the most potential in the Milwaukee area was the Milwaukee County Hospital Association, which includes Waukesha. So we decided that we'd include Waukesha in the umbrella.

This program is truly an interdisciplinary program, an inter-district program, and is community based. To get the program started, we went to the vocational education people and Bob Ristau gave us a sympathetic ear and provided us with a research grant to get us started the first year, with a ten percent local contribution. This provided us with an opportunity to hire a coordinator for the area. This coordinator was acquired from the State Higher

Education Aids Board. She had been working with disadvantaged people throughout the State in terms of placing them in health careers programs. She happened to be in between jobs at the time and was recommended to us by people in the health professions.

Several of the guidelines that we followed in initiating this project were that we wanted the community to have a greater voice than simply an advisory committee, with the one option that the final decisions would have to be made by the local schools because, ultimately, the funding would come from the local school districts and, therefore, even though these people who are what we now call a steering committee, do have a great voice in the actual operation of the program. We do have, more or less, a veto power in terms of the school people in order to maintain our mandate of control of the program from our local school boards.

However, I think that it is unique among all the co-op programs in our area, in at least the Milwaukee area, in that the Advisory Committee is really a steering committee and indeed operates this way. The chairman is the public relations man, Mr. John Turk, who is working with the Hospital Council of the Greater Milwaukee Area. I'd like to just review quickly to initiate this. I think most of you received this little handout and if I would turn to page 4, it gives a list of the people who are on the local steering committee and advisory committee. I think you see the kind of representation we have guiding our program and it does cover a very broad spectrum of areas.

Then I'd like to cover another area with you--on page ten, if you can find it, it shows a representation of institutions that are involved with our program. We have these listed on the next page and the people who are doing the presenting. On the page below that are the classifications of institutions. I'm just going to go through these because I think it's rather interesting: Twenty-five hospitals, eight non-profit nursing homes. We decided to go to non-profit nursing homes because we wanted to avoid the controversy that has been going around Wisconsin in regard to some of the nursing homes; and these types, of course, the non-profit nursing homes, provide us with a clean bill of health in this regard. We didn't have to worry about some of that controversial problem. In addition the list contains: Two universities and five schools within these universities; two vocational education schools, they are the Waukesha Vocational School and the Milwaukee Area Technical College; one medical college; three other colleges, this is besides the universities; one hospital school of nursing; nineteen non-profit agencies, these are such things as The Heart Association and Cancer, etc.; five county agencies; five state agencies; eight city departments, including police and fire; eight professional, not otherwise included. I won't try to enumerate all of these on the preceeding page and down below because as you can see there are a great number of people who are involved.

What does the program really intend to do? I wanted to give you a little background first to give you some idea of the scope of the program. I might add one more thing, so I'll read this little paragraph in the front, as it relates to our purpose: "This program which has as its unique resources in a complete network of greater Milwaukee area community health organizations, is designed to provide opportunities for interested high school juniors and seniors to explore the wide variety of careers in the health care field." I might say this, that yesterday, when Helen Powers was describing the program in California, I thought she was talking about ours because there are so many commonalities between the programs. I think we did have one aspect that was a little different and that was the fact that most of our original funding

came from private donations; and there were over \$30,000 in private donations given to us to get the program underway. It took considerable effort, but it was well worth it. I think if you ask people to give to an organization, they stand by it a little stronger because the more they put into it, the more they feel part of it. This was true of the whole program. I think this is the strength of co-op programs in general. As community based programs grow, the community stands behind you more and more because they are an integral part of it. And I think this is the tremendous strength we have in these kinds of programs.

I'll read the objectives to you because I think that also needs to be on our tape: (1) To acquaint students with the many health career opportunities; (2) To enable students to investigate first hand health career opportunities and to evaluate how realistic their health career interest is in relation to real work; (3) To prepare students to choose a health career by testing their abilities on the job and by learning competencies needed for specific health occupations; (4) To develop competencies under professional supervision so students can go directly from graduation into health occupations or training and education for a health career.

These are objectives that we thought would be applicable for health delivery systems: (1) To provide the quality and quantity of those in career occupations. I might just say that in regard to quality, we feel that one of the problems occurring in many of the low echelon jobs which the health community provides, is that the people entering these jobs, in many instances are entering them not as a matter of choice, but simply as a pickup job. They enter it because they suddenly are out of work or suddenly see that they have an opportunity to get some additional income besides that which their husband's job will provide. So they go into this area merely because there's an opportunity rather than because it is an actual career choice. We feel that not only for the lower echelon jobs, but all through this area, that the youngster who starts looking early at the variety of occupations available to him not only in health careers, but other areas, may consciously decide to choose the health field. Thus, he may be a better person to work with real people. Yesterday, we talked about the product of health care as being human beings. We feel very strongly about this. If a youngster decides that he wishes to go into this field because he or she wants to work with human beings and because he or she is interested in this area, then, indeed, we should eventually have better and more productive workers. These people will be happier on the job and probably will be more humane in their treatment of the product. (2) To improve health professionals, job satisfaction and stability ensue by enabling students to realistically appraise themselves in their career choice. This again refers to the statement I just made. (3) To improve the quality of patient care through better trained personnel. (4) Then for the community: (1) To improve the quality of services by increasing the number of knowledgeable consumers and (2) to help meet unemployment problems of high school graduates by providing them with employable skills in somewhat specialized and in growing career fields.

How does the program actually operate then? We now have three school systems. We know that it has both public school funding and private contributions. We had some initial funds from the Department of Public Instruction. It's a two-year program. In the junior year, it is basically a survey program. I don't like the word "hands on" either, but it is a way that students actually get involved in actual on-site experiences in all of these areas mentioned. The students have half of every day during their junior year, to explore. This may seem like an awful long time, but when you go through the curriculum we

have for this program, the paper work they have to turn in, and the tests they take to examine what they retain, we find that it isn't any more time than they can usefully spend. We talked about the possibility of cutting it down to one semester, but we found difficulty in determining just what to cut out. We have no trouble at all, wisely using all of that time during the junior year. Incidentally, those youngsters who wish to go on to college or who have the ability to go on to college, still have the opportunity to do so. They have four hours in the morning in which they can take their academic course work. In many instances, the grades of these youngsters have improved considerably, once they discovered that they really had an opportunity to use this high school education either in a post-high school program or in terms of applying it to their health career. This cost us something like \$12,000 last year and I assume it will cost a little more this year. We're in our second year and this year our students are being co-opped. We use the word "interns" because some of our students in some of our better work experience jobs cannot be paid because of the kind of experiences they are getting. They're in areas for which there is no funding available. Therefore, the students have to decide on their own if they would rather have this kind of opportunity, rather than taking a job that will not provide a certain kind of experience for pay. There would be jobs available for every student in a work experience. These jobs are everything from nurses aides to people working with ambulances. One girl, for example, is working at Marquette University with a bio-scope. She does something with tissue samples and because she is liked so well, she is going to be getting a scholarship to Marquette. She's also being paid for this work. This is typical. We have people working in the Health Department taking phone calls, with group counseling, with people in environmental control, and other fantastic kinds of experiences. This is in their senior year, and the majority of our students are paid, but there are some who are working as "interns". We're using the word "intern" in our school district, for other programs outside of our cooperative education program, to denote any type of experience that students can have outside the school, that's voluntary.

Incidentally, we do not bus the students in the senior year. They provide their own transportation.

If you have any questions, I'll be glad to answer them during the question and answer period.

MCCHESNEY: I'll begin this morning by telling you about our current program in terms of structure and then review with you an evaluation that I completed of our health program after the first full year of operation, which was last year.

For you people that don't know, Monona Grove High School is in the city of Monona. There are approximately 1,160 students in our school. We are surrounded by the city of Madison and Lake Monona. We also serve a small community located ten miles away called Cottage Grove and that surrounding area. So we have students being bused everyday. Most of our students find employment in the Madison metropolitan area. Our school is presently offering six vocational "Capstone" programs with seven teachers involved and we are in the process of building a seventh program in the industrial education area. Next year we will have approximately 55 percent of our senior students in a vocational "Capstone" course. In the health area we require a one semester course at the junior level called Health Careers and another semester course that is recommended, entitled Child Growth and Development. At the senior level, the "Capstone" program is entitled Health Services. At this point in

time, the students are committed for two of the three periods in the afternoon, with most students having a study hall the other period. The students remain in the classroom for the first seven weeks of the school year and then are released to go out into the community either at a cooperative training station or at an observation station. The students in the observation phase are transferred every ten weeks to a new station so that they have three different exposures during the thirty week period. In the 1972-73 school year, we had eighteen students in the program, with ten on co-op and eight on observation. This year we have eighteen students again, with fourteen on co-op and four on observation. We started this combination co-op and observation program because of three points: (1) the newness of the program; (2) being able to immediately sell the co-op program to all health institutions in the community; (3) because in some areas of the health field it is impossible to get cooperative training stations. If we are going to remain flexible in terms of the students' career objectives, we need the flexibility of this observation program.

I have a handout with me that will show the sequence of courses, course procedure, course outline, training agreement, permit form, and evaluation form that are used in the program.

Regarding the second part, I'd like to briefly share with you, the evaluation report that I prepared and submitted to the superintendent and Board of Education. I'll read only the parts that I think would be of concern to the participants of this workshop.

The report: At the time the Board of Education approved the program it was our feeling that a need existed for a vocational health program because of the following points: (1) the prediction of the growth of number of workers needed in the health field, now and in the future; (2) the interest shown through the newly formed health club and the number of graduates entering the health field even without a program to prepare them initially; (3) the need for another vocational offering because a few girls, especially, graduate each year without receiving in-depth training in the vocational area and were without the ability or interest to continue their formal training.

In reviewing the progress made from the original request submitted to the Board of Education to the present, we find: (1) advisory committee was established to help us in reviewing the course development, sequence of courses, curriculum outlines, materials used, and contact with health institutions (I should have said development as well); (2) the school district has established many fine contacts with health institutions in the Madison area, and (3) a sequence of course outlines and materials was prepared with health careers being taught in the junior year and health services in the senior year.

However, more important is the effect the program had on students. This question was approached in two ways: (1) by reviewing the performance of the student during his senior year with the performance for the first three years, also to compare their performance with the total student body; (2) by surveying the student, parents, and personnel in health institutions that cooperated with us by providing learning stations. In regard to student performance, approximately 45 to 50 students enrolled in the health careers course and eighteen students in the health services "Capstone" course each year. At this time, twelve of the initial eighteen students in the Health Services "Capstone" Course are either working or in school pursuing a health program. In comparison of the health students with the total student body, the total grade point average of students in the program increased by .24 which is one-quarter of a grade, as compared to .03 for all students. The

statistics show a slight decrease in the English grade point average and an increase in the Social Studies grade point average of .36, or one-third of a grade, for all health students. All seniors are required to take those two courses. The average attendance-absenteeism rate did not vary more than one day per school year between their junior and senior year.

The personnel in the institutions that served as training stations, parents of the students in the program, and the students involved in the program filled out a questionnaire in order to evaluate the program at the end of the first full year of operation. The questionnaire sent to personnel in the institutions was brief and they were asked such questions as: Why did they get involved in the program? Then a question was asked about the weaknesses of the students and recommendations. Regarding the recommendations made, the first question at the end of the questionnaire was: What recommendations do you have to improve the program for the future? Only six of the people responding, did write in a comment. (1) "It might be helpful to have an early contact, say within the first two weeks after the student was placed, with someone from the school. This was not a major problem for me, the contact with the instructor came a little later and was very satisfactory." There was a contact just after the student started, but it was just after initial placement. (2) "Perhaps be a little more selective in placing the student in an institution more related to their chosen field." (3) "If at all possible a school teacher should be selected who can continue with the program year after year." This is a little bit comical. Marilyn was pregnant last Spring and I think this person just assumed that she wouldn't be back with us next Fall. (4) "It would be more realistic for students to seek regular employment at a going wage and be required to meet qualifications of positions for which they are applying." One institution in Madison has set up a special budget for this program because of a union conflict and that came about because of this statement. (5) "To achieve maximum we prefer observation of voluntary students to be committed for a longer period of time." This is in reference to our ten week periods. (6) "Interview at placement for student so student could determine whether his assignment was of any interest."

Then the last question we asked: Are there any general statements you would like to make regarding the program and your experiences with it? Eleven different people decided to respond here. (1) "We were pleased with the program." (2) "Rewarding both on mine and the student's part." (3) "Exposure to the real world is extremely helpful to all young people who have it." (4) "The young lady I had was interested, questioning, and sincere in her efforts." (5) "Impressed with the instructor's follow-up of the student." (6) "It gives the student an opportunity to gain some insight into the profession before entering it as a life-long career." (7) "MG students who are definitely in the superior category, were signed to a variety of departments, functioned well in all areas." (8) "I'm not sure whether much on the job training but they were getting an overview of the hospital activities and the awareness of sick persons' attitudes." (9) "Like to see it continue with the interest in participating next year." (10) "Two of the three persons were highly interested in the work. Sixty-six percent ain't a bad average." (11) "I had a poor experience with my student but I am willing to participate in the program again."

Regarding the questionnaire that was sent to parents, I'm going to again go down to the last couple of questions. The others were nitty gritty about program structure, etc. Has this program changed the attitude of your child in regard to the health field? Three said, "No change. Desire and commitment are already high." The rest responded in the second category which was, "created

more desire and commitment on the part of the student." No one responded lower, in terms of just so-so or negative.

Another question: What is your overall feeling at this time about the health program your child is completing? Five said, "Finest educational experience received to date", all the rest, the next category, "Better than an average educational experience received to date." Then we asked if there were any comments. Nine parents made comments here:

"Excellent beginning for an outstanding program."

"Excellent program which I'm sure will improve each year."

"We think the program is the greatest thing that has happened to the educational system."

"My child is definitely committed to the health program."

"It gave her a better perspective."

"I feel that my child was not at all prepared for the type of work she would be faced with when working at the nursing home. I feel the teacher wasn't knowledgeable about the conditions she would have to face. I can't think of an eighteen year old that I have ever encountered that could handle that type of situation."

"I think the basic idea of health education is great, but the fact that those students younger, under eighteen years of age, can have no patient contact restricts them from as much involvement as others who are over eighteen."

"Very well worthwhile program. Increases confidence toward the medical field."

The last comment: "More vocational programs should be offered."

Moving on to the students... Again, I'll deal with the last few questions at the bottom of the questionnaire. One question: What are some of the more important things that the course is doing for you? The highest response by the students: "Helping me to better understand myself."

Right next to that: "Helping me to get ready for post-high school vocational or technical course." And a couple right underneath that: "Helping me to get a job after I graduate from school." And the fourth: "Teaching me good work habits." There were others.

Do you feel that any of the following statements apply to the course which you are now taking? There were two high responses here that I'll just point out to you. Highest: "Should have more personnel from health institutions talk to us." The other one: "Should have more time to discuss job related problems." We're taking care of that in our review of the program. The rest were very low responses, so we felt good about it.

And then at the end: Reviewing your total educational experiences to date, how do you rate the health senior vocational "Capstone" course?

More than half of the students indicated: "The finest educational experience received to date", the rest, the second category, "Better than an average educational experience received to date."

In conclusion of the report, and we felt it was quite positive, I made these statements: (1) the school is meeting the needs of the students who have a desire to explore and receive training in the health occupations area with the number of students who have enrolled in bulk in the junior and senior courses; (2) two-thirds of the students enrolled in the capstone course continue to be involved in the health field after graduation; (3) the feeling that the health program will appeal to and meet the needs of a wide variety of students in terms of background and ability is important and shows that the students are selecting the program based on need rather than on any other purpose. This is one thing I did leave out. We did have a real cross

sample of our student body involved in this program. Each quarter presented a real challenge to the instructor. (4) The involvement in the program did not hinder the grades or attendance, in fact, the total academic achievement improved their senior year as compared to the total student body. Also, it is our belief that without this program, two of the students may not have completed their high school program. (5) The questionnaire returned by people in all three groups show a high degree of interest, understanding, acceptance and commitment to our program; (6) all of the institutions involved with the program thought it was worthwhile and are willing to participate in the future; (7) the parents, in general, rated the program very high and feel it is an excellent addition to our course offering; (8) the students showed a definite commitment to the program at the time when they made a decision to enroll and this commitment carried through with their occupational plans for the future; (9) in general, the students had favorable reactions to the program, the method of instruction used; (10) the students rated the program very high and feel it was extremely beneficial and relevant to their needs.

I've gone through this quite quickly and if there are any questions, please ask them later. In conclusion, in terms of the future, we are satisfied with the program that we presently have and the progress we have made. However, we do feel that we will be moving to a total afternoon program for all students, which in reality, is the case for most students at this time. We feel strongly about the first seven week classroom program before the student is placed at a cooperative or observation station. Also, as our program is developing we see, as an essential part of it, having the students attend class every day before being released to go to their station. Finally, we definitely want to retain the cooperative and observation phases of the program. This flexibility, we feel, is extremely important. Thank you.

HOFFMASTER: Good morning. I am please to be here with you.

I think that I feel that my principal goal in meeting with you is to be able to establish a means of communication with DPI in your health careers program and with the Vocational-Technical Adult Education System in their program so that we have some bridge and a way to communicate. The joint mission statement from Mr. Lehrman and Mrs. Thompson reads as follows, and I think it is a very important thing: "Local public school districts are primarily responsible to provide vocational education to high school youth. The Vocational, Technical and Adult Education districts are responsible for providing vocational and technical opportunities for post-high school youth and adults."

The thing I want to get across here is that you people are going to be at the starting point here. In some of your areas, it will be for the student to be going out into the world of work. On the other hand, he might want to go further and we would like communication to be established. So after completing his secondary education, a student will not feel that he cannot use what he has learned to go into the vocational system and will have to begin all over again. After all, time and money, these days, is of the essence.

In the green booklet, "Learning for Living in Today's World of Work", and "Opportunities for Education"--in these areas, there is a breakdown of what is available as programs that are offered in the VTAE system. They show what the makeup of the board is, what the organization chart is, where the districts are, and who the district directors are. You certainly can contact these people to be able to contact the health occupations coordinator within that district. There are sixteen districts in the State of Wisconsin. We have health occupations coordinators in fourteen of these districts.

Along with the booklets, I have brought along a pack that has been taken out of our annual report. It tells the various levels at which we have programs within the system. There is also a description of particular courses and where they are located. If you are interested in further statistics about how many students are in the various programs, we would be glad to supply you with them. Other than in the nursing segment, the classes are usually small. When I say small, I mean anything from lab. techs. that might have twelve students in a program, on up to twenty-four. One of the things I would like to get across here is that students who want to go on for technical programs, for the two year associate degree programs, should be counseled into taking a good program in math and science. While programs offer open admissions as far as the schools are concerned, there are prerequisites as far as health occupations are concerned, in some of the areas. If youngsters are interested after the exposure they have at the secondary level, then they should take courses that they're going to need when they go on.

I also have copies of the State Plan. In the back of the booklet, it shows what the goals, objectives and activities are.

I've noticed that you have lots of resource material around here and I think that's great. I did not notice that you have the essentials for allied medical education. As far as I'm concerned, this is the bible for health occupations as far as what the essentials are for schools that have health occupations programs. This might not apply to certain situations, however, I think you should be cognizant of what the requirements are for people who go through the program so they meet the requirements to write certification examinations.

Also, allied health, their association does put out a newsletter that I think would be very good for instructors as to the kinds of ongoing programs there are across the country. This would include educational programs, ongoing education, and continuing education, etc.

I will be with you later on today and we will have a question and answer period. I can give you more information through particular questions that you might have, rather than to keep speaking and giving general kinds of information.

QUESTIONS TO MARGARET STRAUSS, PAUL SPEIGHT,
ROBERT THOMPTON, GORDON MC CHESNEY, AND
MARTHA HOFFMASTER ON "LOCAL PROGRAMS IN
HEALTH OCCUPATIONS TRAINING"
May 17, 1974

Note: Tape inaudible preceding the following comments due to background noise.

THOMPTON: First of all we have insurance for the program. We buy insurance for our personnel. Then each institution assumes responsibility in their own locality, just as if you had a field trip going into that building.

MCCHESENEY: This is the way we handle it, too. The institution is aware of the program through Marilyn explaining it to them. We allow them to then take the initiative in terms of protection for the institution. And this is the problem we have with less than eighteen year old students. They can't have contact under that policy. Outside of that, it's their insurance carrier that must be notified to the fact that there are students in their building.

PITTS: We were discussing, yesterday, the attrition rate at the post-high school or technical school level of students enrolled in your health occupations program. Do you have any statistics on that?

HOFFMASTER: Not pulled together, no. In health occupations, from our annual report we are aware of how many drop outs there have been. Most of our programs are very new. In these new programs, at least for the first two years, the attrition rate is very high. On some of the others, I think, there's somebody who made the remark about the fact that their eighteen year old daughter should not be exposed to what she was exposed to in a nursing home. I think this happens so many times in this one area. I'm involved in the Occupational Therapy Assistant Program and many times the ones that drop out of the program are the ones that have gone into nursing homes situations and they can't hack it. And when they get out, they're in the clinical situation maybe after the first eight or ten weeks they're in school and that's it. But attrition rate for some of the programs is quite high; for others it is not so.

PITTS: Would you therefore see a need at the high school level in this kind of programming to get a more select type of student?

HOFFMASTER: You know, it's really not only select as far as academic background is concerned because you can get kids who have a great academic program and when they get into a nursing home, or a hospital, they can't hack it. But the main problem that we have is the fact that these kids don't know what they're getting into. The first time they go, they feel, "this isn't for me."

MILLIKEN: They don't understand what the health field really is like. As I commented yesterday, the one who says, "no more, this isn't for me," that in itself validates the high school program. So in terms of protection of time and money investment, I think this is one area that must be considered.

HOFFMASTER: What's really serious about the whole thing is: When you have only so many slots and the student goes into the system and that slot is filled and the student decides this isn't for him, then, due to the fact that

many of our programs, at this point in time, are not individualized enough so that somebody else could come and make up that time. So there goes the rest of the year where that slot is empty.

MILLIKEN: So you've lost two people. One who couldn't hack the program plus the one who is kept out.

MCCHESENEY: This is important for all of us on the high school level to keep telling our boards of education and our administrators--that this is a real plus, it is not negative when someone finds out that this program is not for him. We have helped that child.

MILLIKEN: And I would hope that after five years, for example, that your attrition rate in the post-secondary program would show a change in showing a reasonable ratio in the number of students who come into your program who are graduates of the high school program. You're going to continue to get an awful lot who did not go through the high school program, but looking at that group who did have the high school program, you'll see a difference in the attrition rate for that group compared to the group who did not have the high school program.

HOFFMASTER: I would agree with that.

PARTICIPANT: The reason I bring that point up, among other reasons, is that as we start placing these youngsters in clinical settings in the community which are also shared by students in the regular technical school program, there could be some feeling of antipathy by staff at the post-high school technical school facility. There's a little bit of jostling here for these positions and we would hope that they would understand the need for high school kids to be out in these clinical settings. We would hope that at the State level this would permeate down so that they would understand what it is that we're trying to do.

HOFFMASTER: As I said I'm an occupational therapist. I can remember the time when they started to bring OT assistants into the clinical setting. You couldn't have both kids there at the hospital at the same time. There are still some health programs that still look at this. I would hope that this three model kind of thing would be how people are going to get along together. They've been yelling about teams for years. You certainly can't do anything in a team unless you start way back and get this thing going. I think maybe there might be some of this at the beginning, I don't know. I have seen this with the person who has come in as an assistant or as a technician with baccalaureate degree programs. As I said back then, you couldn't have both sets in your clinical area at the same time, but that has certainly been erased. And now it's learning to live together, and health people have been through this process.

QUESTION: Picking up on this, has there been any articulation with any of the professional groups in the health field? Has any representative from, for instance, the state department of education or instruction gone to the meetings that they have and said: "Now we're really off the ground on these health occupations programs. Can you put out a position paper that says when you have students in your area that are involved in these health career programs, we recommend that you cooperate as fully as you can with them." Do you think that would help?

HOFFMASTER: I think it would help. I don't know if this has been done at this time. I'm not aware that much has been done.

Note: From this point on, the tape was not completely audible so it is impossible to edit for accuracy of content.

THE CHANGING ENVIRONMENT
FOR HEALTH MANPOWER
May 17, 1974

James R. Kimmey, M.D.

I'd like to talk a little bit tonight about health care delivery, and some of the problems we're having in the United States. I will also speak of the opportunities we have, because that's the other side of any crisis, and politicians are fond of saying we have a health care crisis in America today. I'd like to talk a little bit about how government relates to the health care system because there's increasing evidence that government is going to relate to it much more in the future than it did in the past. Perhaps by this kind of discussion, I can suggest some things that are going to happen in terms of demand for various kinds of manpower and the acceptance of new kinds of manpower.

The basic place to start is not the health care crisis, which is a very popular sort of thing to talk about. There are problems with the health care delivery system. Many of these problems are cost problems. People are concerned about hospital rates. People are concerned about physician fees. I think people are concerned about the rate at which these costs are increasing relative to other kinds of costs in our society. I think the place to start is with a concept that first was articulated in 1932 but wasn't mentioned again in a very serious fashion until the 1960's, about the time Medicare and Medicaid were enacted. The concept is that the right to health and health care is a basic human right. This idea has become a political phrase. It's a rhetorical phrase. It has been used by the last three Presidents in speeches. Congress has used it in the preamble of a dozen pieces of legislation. But we weren't very much concerned about what the implications of that might be. If you really believe that in this country at this point in time, the right to health care is a basic right, then you'd have to accept that there will have to be some major revisions in the way we organize the delivery of services, in the amount of investment that we make in health care, and the way that this investment is spent. We haven't really dealt with these problems very seriously until the past three or four years. I think right now we are on the verge of beginning to deal with the cost problem, the accessibility problem, and with the problem of new ways of organizing services. We are recognizing that the traditional way may not be the one that's most in the public's interest or that's most efficient. This has given rise to this great amount of ferment that you hear about in the media.

People are now calling for a greater involvement of government in the health care system. Usually, people turn to government and say: "you've got to get involved from the point of financing, or regulation, or whatever else," when they feel utter frustration with their ability to do something about a situation themselves. The health field is no different than other fields in this regard. The health market is not sensitive to things like purchasing power. Supply and demand, which affect the general economy, really don't affect the health field very much. We can create demand. The presence of a physician can create demand for services. This has been proven time

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after time. On the other hand, in the absence of a physician there is obviously no demand and people are not getting services that they need--even basic services. You see excessive services in a city like Madison. We have more of everything than any other community in the state, in terms of specialized health services.

So we're hearing a lot more about the Federal Government and State Government getting involved in the health field and this, by and large, falls into three areas: (1) capacity building; (2) financing; (3) regulation. None of these are new, although every time we bring up some of these ideas and begin to discuss them in our society, we act as if we invented them. We can't really take credit for them. The government has been into the health care system, in these areas, for 50 or 60 years. In some places it has been involved for a shorter time than in others. For example, capacity building. The government has supported research in health care delivery for 30 years now, and more, through the National Institutes of Health and a few other similar mechanisms. This really is a capacity building effort because, in theory at least, you're increasing the amount of knowledge that's available to impart to the people who are providing health care so that they can do their job better. We recognize that many of the things that are being learned, we haven't been able to apply yet. Or we find, as the technological aspects of medical care become more and more sophisticated, they also become more and more expensive. Artificial kidney treatment and cardiac transplantation are the sorts of things that are the most attractive, get the most attention in the media and are exceedingly expensive. These kinds are being pushed and carried forward in the same environment that doesn't provide basic immunizations for many citizens. Nevertheless, the building of knowledge has been an area of government intervention which has become socially acceptable. The Congress funds it, physicians accept it and the public accepts it as a legitimate role for government involvement.

Another capacity building effort is construction of facilities. We've had the Hill-Burton program since 1946, which was set up to provide facilities, particularly in the rural areas. The program is now being phased out because the federal government, at least, feels that the rural areas are now well served. Attention is now being turned to renovating things that were built twenty-five years ago because, after all, they're horribly out of date. They are providing out-patient facilities as an alternative to in-patient hospital beds, with federal financing. It's another form of government intervention that's acceptable. Generally, no one gets upset because the Federal Government is putting money into facilities.

Another kind of capacity building, and the one you're most involved in, is manpower. We've undertaken many governmental and private cooperative programs to increase the pool of manpower available in the health field. Initially the federal support here went to physician education, dental education, nursing education, and then to allied health manpower. More recently, support went to the training of physician assistants and new types of personnel. Quite a bit of money has gone into this from the federal level, in terms of support of the schools, for the development of new schools, and for continuing existent schools. Direct support has gone to individual students in these various fields.

State Government, which is not very much involved in other capacity building efforts involved in the manpower area. They have supported professional education programs through the education programs for allied manpower that are supported in state institutions or local government programs.

These are capacity building efforts which are based in a governmental institution--the educational system.

There is another kind of capacity building that probably is not as obvious as facilities, research and manpower. That's planning. Quite a bit of

money has been invested by government over the last seven or eight years in trying to improve the quality of planning that goes on for health services in this country. Perhaps this is without the kinds of effects or the amount of bang for the buck that the Congress would like to see, but nevertheless, in this State at least, we have a fairly well organized network of area planning groups and we have a state health planning agency. This has, I think, been by and large, seen as a capacity building effort and, therefore, has been quite acceptable.

But when you move on to other ways that government can be involved in health care, you get into bigger problems--financing, for example. A fair amount of controversy surrounds how government should be involved in financing health care. Medicare and Medicaid have been in place now for six or seven years and serve a limited portion of the population. I think that we're now on the verge of enacting national health insurance that will cover the entire population. Thirteen or fourteen bills are now before the Federal Congress that deal with national health insurance. The developments there within the past few months suggest that there will be a national health insurance program, probably out of this Congress. Not before the Fall elections, but probably next year, we will see an enactment of something that touches everybody in terms of health insurance. This may likely begin with catastrophic coverage and extend from there to a broader kind of health insurance in the future. This is a major change in the environment into which you are putting your product, people who are going to pursue health careers.

The coming of a universal entitlement to national health insurance is going to tremendously increase the demand for health personnel. It's going to have another effect. Briefly, it is going to shift the tasks of the various kinds of health personnel that we recognize today: physician assistant programs, nurse practitioner programs, other things that are being developed in various States. I feel these are responses to the knowledge we now have. If everyone could purchase the care he needs, we wouldn't have the manpower, the facilities, or the resources to provide that kind of care right now. We'd create a tremendous strain on the system. We are looking, along with planners and others, very carefully at how can you redistribute some of the tasks in the health field to make more effective use of people who have not necessarily had fourteen years of professional training. The financing thing, then, I think, is going to come to a head very soon. It's going to have major effects on demand. Very rapidly, it's going to have major effects on the need to increase the capacity of the system.

The third way in which government relates to the health care system follows from financing. This is regulation. This is probably the least popular, to health providers, of all in terms of the way to proceed. Basically, the idea is that if the government is putting funds into health care, then they want to be assured, in some way, that these funds are purchasing high quality care and that they're purchasing adequate amounts of care for the money allocated. So we've seen develop around Medicare and Medicaid, two efforts within the last year: the PSRO, the Professional Standards Review Organization Amendment, which requires that patients whose hospitalization is paid for by Medicare and Medicaid, have their cases reviewed to make sure that the facilities are being appropriately utilized by the admitting physician. In other words, if a patient is in an acute hospital, which is the most expensive space you can occupy these days, they're there because they need to be there. They're interested in knowing whether the patient is being kept there for his convenience, for the physician's convenience or for other reasons. When the patient is ready to go

to another kind of facility, for example, a nursing home, they want to know the transfer is carried out readily and at the right time. Those kinds of reviews are going to be started now within the next year or so on a very highly structural basis throughout the State under this federal law.

Another federal law relating to regulation is capital construction approval. It requires that any institution that's going to build something new must have advance approval from planning agencies to show that what they're building or buying is really needed. This one is fairly controversial. It's related to cost. It's related to the idea that if you duplicate facilities and then they're not fully utilized, you're paying for excess capacity. Given the way we pay for health services, the excess capacity in Madison, if there is excess capacity, is being paid for throughout the State. This is paid from the tax side, with Medicare/Medicaid carrying something like 35% of the hospital costs, or from the private insurance side where hospitals are traditionally reimbursed for costs-plus. So there is no real incentive to not build unneeded facilities. In fact, there is more of an attempt to keep up with other institutions. This kind of legislation has come along and is putting stringent control on hospital and nursing home construction in the State. These are things that are happening in terms of new programs and new ideas along with some old ideas being refurbish-

What effects are these going to have in terms of the manpower field? I'd like to focus in on one or two things. In a State like Wisconsin it is not purely that we have a shortage of physicians, although we're somewhat below national averages. But then, the national averages are not all that well documented. In this State, we have 119 physicians per 100,000 population, and the "desirable" average is 140 per 100,000. No one is really sure that 140 is magic and that maybe it really isn't 127. The problem we have, and this is true of many rural/urban states, is that of distribution of medical services. We have a lot of physicians in Madison and Dane County. We have a lot of physicians in Milwaukee and the Milwaukee suburbs. And we have areas of the state that have physician ratios that are somewhat lower than rural Mississippi, as well. Some of our northern counties either have no medical service at all or they have maybe one physician for an entire county. More often than not, the rural physician is older by far than his urban counterpart and there are some limitations in the amount of service he can provide. The one problem we have to face, and it's not only for physicians, although they're the most obvious example, but it's for all kinds of health manpower, is the problem of how to achieve better distribution. You can't provide health services without some kind of health manpower. That's one of the basic rules. Where you have a distributional problem, I doubt that we're ever going to get to the point in this country when you can say to the graduates of medical schools: "You must go to community X because they don't have a doctor." I suspect that would be rejected politically and socially if it were ever tried. So we have to look at it the other way and try to come up with incentives to secure better distribution. Loan forgiveness has been tried and tax forgiveness has been considered or is being considered along with income supplementation. Probably the major problem that we have right now is redistributing the resources. Even so, we feel there still will be communities that will not be able to attract and hold physicians. What are we going to do about these communities? That's a problem and it's a fairly major one in this State.

We have some suggestions from studies of how to hold physicians. Money ranks quite a bit ahead of the others, but on the other hand there's some very significant things that come in the second group of factors. Some of these are the opportunity for exposure to other doctors, collegial relationships,

and the quality of facilities that are available. We train our doctors in the most sophisticated facilities possible, university medical centers. We should probably not be surprised if they don't want to move far away from this type of facility. They've learned in a situation where everything was available, and to expect them to go to a community where the hospital is fifty beds or 100 beds and has very little in terms of sophisticated service is probably a very unrealistic expectation at this point in time.

We put an emphasis on specialization in the educational programs, so people come out of medical schools with the desire to specialize. Yet the need for most specialties, in rural areas where we have problems of distribution, is very low. And we badly need some kinds of physicians in rural areas, to name a few: practitioners, pediatricians and internists. But when you get down to doctors who specialize in childhood diseases of the lower pole of the left kidney, there's not much demand out there. These are the kinds of problems that we have; and so we have to look at alternatives.

There are programs going on in the state now, jointly sponsored by the Health Policy Council and State Medical Society, to begin to look at some of these alternatives. An alternative that has been tried in other states, particularly in pediatrics, is the nurse practitioner. And those of you in the audience who are nurses, are aware of the discussions going on about the expanded role of the nurse in obstetrics and pediatrics, in general medicine and in other areas. There have been fairly good results in the far West, where nurses have been placed in independent practice in communities unable to attract a physician. They have an established referral relationship with a physician or clinic in another relatively close community and they handle probably 60 or 70 per cent of the basic or primary care of that community. There is a reluctance that this type of program be employed, both from the standpoint of physicians, who are a little reluctant to see another primary care practitioner evolve, and from the standpoint of at least some people in nursing, who see a more traditional role for nursing. These people have some reservations about the nurse moving into this area of therapy. There have been experiments done with what's called a physician's associate, an individual who is neither a nurse nor a physician, but who has master level training that includes a good deal of clinical experience in basic diagnosis, immunizing, and developing a fairly high sense of what to refer and what to try to treat themselves. People like this have been placed in fairly independent practice locations. There have been experiments with the circuit riders. This concept goes back to something we had 75 years ago, where you set up clinics in small towns and a large multi-specialty clinic in a city nearby provides physicians two days a week and, in the other days, the clinic is staffed by public health nurses and nurse practitioners. There are all kinds of new approaches to primary care; and I didn't include among these, one which I'm sure you've all been hearing about the position of physician's assistant, and the physicians' assistant programs. You may know that the legislature in the last session passed a bill for the certification of physicians' assistants in Wisconsin and the Governor signed that law. It's rather indefinite as to exactly what the legislature had in mind. In fact, it's rather indefinite just what a physician's assistant is right now. We have programs that range from very brief training programs for returning military Corpsmen up to extensive programs resulting in Master's level training, like the one at Duke University. All of these programs turn out a manpower product called a physician's assistant. Just because of the diversity in background and training of the PA's, we have a problem immediately when you try to say, "Where does this new kind of occupation fit into the overall spectrum of

health occupations?" Nursing is very nervous about physician's assistants. Physicians aren't quite sure what they should do with a physician's assistant. Some physicians feel an assistant is a person who hands them things. Other physicians feel an assistant can take on quite a variety of responsibilities in terms of history taking, basic physical exams, preparing laboratory examinations, and so forth. So we are at a point now where there's not much agreement on what this category of personnel should do, or wants to do, which is probably the most important question of all. At the same time we're moving to certify them. We're putting up standards for educational programs and preparing examinations for certifications of PA's. This may be somewhat premature.

(We apologize for not being able to supply Dr. Kimmey's address in full. Due to a technical error, the remaining part of his speech as well as the question and answer session which followed are not retrievable. We deeply regret this because so many answers to the questions were of great interest to all of us at the workshop.)

APPENDIX A

Q U E S T I O N S A N D A N S W E R S

THE QUESTION

THE ANSWER

What are the objectives of this instructional system?

ENDS

What procedures are most likely to lead to achievement of the stated objectives?

MEANS

From W. James Popham and Eva L. Baker, Establishing Instructional Goals (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), p. 82.

W H O

A L E A R N E R

W H E R E

I N A L E A R N I N G

S E T T I N G

W H E N

D U R I N G P R E - E M P L O Y M E N T

T R A I N I N G

A S K I N G T H E R I G H T Q U E S T I O N S - -

WHAT SHOULD MY STUDENTS BECOME BY THE END OF THIS COURSE ?

N O T

HOW SHALL I TEACH THIS COURSE IN _____ ?

HEALTH CAREERS ARE CAREERS OF --

LOVING - ANALYZING - HOPING - PLANNING - SHARING

Developed by Shirley A. Deverell Under the Direction of Mary Elizabeth Milliken, Ed.D.
for the Health Careers' Education Program in the Georgia High Schools as a basis for
a more fully developed program.

A Three Year Curriculum for Health Careers Education

Vocational Decision-Making -----

Matching Personal Interests and Strengths to Job Requirements

Selecting an Occupational Area

Selecting a Job or Job Family

Selecting the Level for Initial Aspirations:

Further Education

Immediate Employment

Career Development Paths
and Options

Self - Study -----

Interest Inventories

Discussions: Job Requirements

Satisfaction

Success

Job Security

Goal-Setting: Immediate

Long-Range

BROAD OVERVIEW OF CAREER OPPORTUNITIES IN THE HEALTH FIELD

Exploratory Experiences -----

Observation of Health Workers

Interviews with Health Workers

Presentation by Health Workers

Participation in Delivery of Health Services - Limited
Supervised

Skill Development -----

Entry-Level Skills Representative of Several Jobs in the Health Field:

- Common Elements---Job Family
- Unique Elements---Each Job

CORE CURRICULUM

A Widely Accepted Concept in Education

ROCOM - Health Employee Learning Program

CORE CURRICULUM

Core curriculum is the educational concept of utilizing widely varied subject material as a "core" around which an entire educational program can be built for various groups of students with related general interests but divergent specific interests.

The ROCOMTM Health Employee Learning Program incorporates this "core curriculum" concept for training paramedical personnel. It offers the broad basic subjects plus the highly specific instruction around which an entire training program can be built for nurse's aides, orderlies, attendants, food service workers, and housekeeping personnel.

The basic subjects provide general knowledge of value to all the students. Other material imparts technical knowledge related to certain groups. The majority of the material, however, offers specific knowledge aimed at individual target groups to help those students learn the skills required for their specific jobs. The addition of orientation classes, lectures, demonstrations, practice sessions, and other essential instruction can expand this core curriculum into a training program satisfying the specific needs of the individual health-care facility.

The core curriculum embodied in the Health Employee Learning Program is designed to help each health-care facility build a more successful training program that invites learning, builds morale and motivates workers to a better job performance.

TENTATIVE PLAN

Health Careers: 3 Year Curriculum

- I. Overview of Health Careers
- II. Options: Job Family Skills Cooperative Program
- III. Options: Cooperative Program Job Placement

HEALTH CAREERS EDUCATION - FIRST YEAR

First Year: An Overview of Careers in Health

- * Interviews
- * Observations
- * Films
- * Classroom Discussions
- * Descriptive Literature

Brochures

Pamphlets

Leaflets

Booklets

Taking B/P

Physician Professional Nurse Practical Nurse

Nursing Assistant Blood Bank Technician Laboratory Assistant

Medical Technologist Emergency Technician Medical Assistant

HEALTH CAREERS EDUCATION - SECOND YEAR

Second Year: Health Careers Education

- * If the Student is a Senior, the Course Should Lead to Job Placement

Second Year: Student Elects One Type of Program

Two Options are Offered:

1. A Clinically Oriented Program of Skill Development and Related Learning
2. A Coop Program

Second Year - Option # 1

A Clinically Oriented Program of Skill Development and Related Learning

Second Year: Health Careers Education - Option # 1

- * Taught by the Health Occupations Education Teacher
- * Class Time: Two Hours Per Day

Second Year: Health Careers Education - Option # 1

- * The Student is Taught Advanced Skills From a Variety of Health Jobs

Second Year: Health Careers Education - Option # 1

- * Students Develop Proficiency Through Supervised Practice in a Health Care Facility

Second Year: Health Careers Education - Option # 2

- * For Seniors, the Course Should Lead to Job Placement

Second Year: Health Careers Education - Option # 2

- * The Student Who Moves into the Coop Program Should be Taught by the Health Careers Coop Coordinator.
- * Classtime: One Hour Per Day
- * On the Job: Two Hours Per Day

Second Year: Health Careers Course - Option # 2

- * The Student Learns Advanced Skills from a Variety of Jobs.

Second Year: Health Careers Education - Option # 2

- * Students taking the coop program during the second year should be recommended by the first year health occupations education teacher.

Second Year: Health Careers Education - Option # 2

- * A Cooperative Program in Health Careers

HEALTH CAREERS EDUCATION - THIRD YEAR

Third Year: Health Careers Education

- * The Teacher Should Individualize Instruction in these Nine Areas to Permit Students to be Self-Directing to a Great Extent.

Third Year: Health Careers Education

- * When Finished with the Study of One Job the Student Chooses another;
- * Must Complete at Least Three During the Year.

Third Year: Health Careers Education

1. Ambulance Attendant
2. Dental Assistant
3. Medical Assistant
4. Medical Laboratory Assistant
5. Medical Record Clerk
6. Nurse's Aide
7. Surgical Technician
8. Visiting Home Health Aide
9. Ward Clerk

Third Year Program of Health Occupations Education - Specialization

- * The Student Chooses an Entry-Level Job and Begins In-Depth Study of the Skills Required for that Job.

Third Year: Health Careers Education - Specialization in One Health Job

Third Year: Health Careers Education

- * Coop Format
- * Taught by the Health Careers Coop Coordinator
- * Classtime: One Hour Per Day
- * On the Job: Two Hours Per Day

THIRD YEAR

Options	Cooperative Program	Job Preparation
OPTIONS: Skill Development -- Job Family	Or	Cooperative Program

Advantages of Job Cluster:

- * Provides for Exploration before Vocational Choice or Employment Decision is Made
- * Improves the Probability of Finding Employment
- * Permits Employment Options for the Graduate
- * Facilitates Horizontal Mobility

JOB PREPARATION

Class Periods: One Hour Per Day
 Teacher: HOE Coop Coordinator
 Content: Entry-Level Job for In-Depth Study
 Requirements: Three Jobs Studied In-Depth During the Year
 Goal: Job Placement in One of Three Options

Ambulance Attendant	Dental Assistant	Medical Assistant
Medical Laboratory Assistant	Medical Records Clerk	Nursing Assistant
Surgical Technician	Home Health Aide	Hospital Ward Clerk

JOB FAMILY

- * A Group of Related Jobs which Have Certain Common Requirements
- * Each Job Has Certain Unique Characteristics which Differentiate it from Other Jobs in the Family

SKILL DEVELOPMENT -- JOB FAMILY

- * The Student Has Made a Vocational Choice--the Health Field
- * The Student's Present Plans are for Immediate Employment after High School

SKILL DEVELOPMENT -- JOB FAMILY

Open to Students Who Have Completed the First-Year Program Successfully

Class Time: Two Hours Per Day
 Content: Job Skills Related Knowledge Personal Development

SKILL DEVELOPMENT -- JOB FAMILY

Outcomes: Student Capable of Performance at Desired Level or Proficiency on the Job

Learning Settings: Classroom Laboratory Clinical Agency

Goal: Job Placement

OPTION # 2 - Skill Development--Job Family

- * Involves Skills and Related Knowledge Selected from Several Jobs (Entry-Level)
- * Clinically-Oriented

COOPERATIVE PROGRAM

- * Requires Understanding of the Coop Approach and an Agreement among -
 The Employer The Student The Parents The Coordinator

COOPERATIVE PROGRAM

- * Students Must Complete the First-Year Program Successfully
- * Students Must be Recommended by the HOE First-Year Teacher
- * Coop Coordinator Must be a Credentialed Health Professional
- * Combines In-Class Instruction with On-The-Job Learning and Earning

COOPERATIVE PROGRAM - SCHEDULE

Three Class Periods:	Academic
One Class Period:	Job Related
Two Class Periods:	On The Job

Note: (Recognize the fact that the preceding outline was an initial attempt for discussion purposes only and does not represent the final plan.)

A S A H P

Glossary of
Health Occupation Titles

Developed by
Inventory Staff
of
American Society of Allied Health Professions
Under a Contract From
Division of Manpower Intelligence
Bureau of Health Manpower Education
National Institutes of Health
Department of Health, Education and Welfare
Washington, D.C.

TRANSFER OF LEARNING: That which is learned is usable in more than one context.

LATERAL TRANSFER OF LEARNING: The skill and/or knowledge at a given level is usable in more than one job situation.

VERTICAL TRANSFER OF LEARNING: The skill and/or knowledge at a given level are prerequisites to learnings at a higher level in the same knowledge area or are prerequisite to the development of more complex skills; i.e. knowledge and skills are additive, so that the cumulative total differentiates performance requirements of jobs in the ladder (or lattice).

EDUCATIONAL LADDER: A series of related, sequential courses or programs which provide educational preparation for all jobs within a job ladder.

Characteristics--

- Provides for continuous movement along a job ladder from entry level to professional level
- Prepares the individual for employment credentials for each job within the ladder
- Designed so that educational programs at higher levels credit course work taken at lower levels

JOB TASK: Basic unit of observation for analyzing the levels of skill and knowledge required for satisfactory performance.

JOB LADDER: Sequences of promotional steps which require similar skills and knowledge; there is a common educational base for all levels of jobs in the sequence.

JOB LATTICE: A network of job ladder which allows for linkage of laterally related jobs; lower level jobs (i.e. entry-level and intermediate levels) may be the lower rungs for several job ladders, thereby providing optional pathways for career development.

CHARACTERISTICS OF SKILL TRAINING AND EDUCATION

Skill Training:	Focus on skills only--the steps for performing tasks
	Teaching based on current tasks performance
	Omits (or does not emphasize) related knowledge
Education:	Includes related knowledge--why as well as how
	Prepares for use of judgment and adapting to change
	Prepares for dealing with the unexpected
	Prepares for generalizing

SOME REASONS FOR ENTRY REQUIREMENTS:

1. The course content must be learned before any of the first courses in the program can be taken because the prerequisite content is in a prior, additive relationship to the informational content to be taught.
2. The course content is required before some other required content in the program is learned.
3. Exposure to this particular type of subject matter (but not necessarily any one particular course) is necessary before entry into the program.
4. The course is considered desirable for enrichment of the individual or because it is required for later programs (such as graduate school).
5. The course content must be completed before the program is completed because it is required by an outside credentialing agency.

SOME REASONS FOR CHALLENGING CONTENT IN AN OCCUPATIONAL CURRICULUM:

- Content is obsolete
- Content is not used in the occupation
- Content is not prerequisite to relevant content
- Content does not bring about the desired change

SOME REASONS FOR INCLUDING A CURRICULUM UNIT IN A COURSE:

1. Curriculum unit relates to procedures, techniques, or information required in performance of the occupation.
2. Curriculum unit relates to subject matter drawn on in performance of the occupation.
3. Curriculum unit enhances the student's ability to meet the general educational objective.
4. Curriculum unit is needed to facilitate learning of units represented in (1), (2), or (3), above.
5. Curriculum unit is considered desirable but is not directly related to the occupation.
6. Curriculum unit is required by outside credentialing agency.

SOME REASONS FOR REQUIRING CERTAIN COURSES FOR PROGRAM COMPLETION:

1. Course deals with the procedures or information needed for performance in the occupation.
2. Course presents major disciplines which are drawn on for performance in the occupation.
3. Course presents material needed to enrich the out-look of someone who is to perform in the occupation.
4. Course content must be learned in order to facilitate learning the material in other required courses.
5. Course is considered desirable.
6. Course is required by outside credentialing agency.

APPENDIX B

The Status of Health Occupational Training in Wisconsin Secondary SchoolsA Survey

In an attempt to determine the status of health occupational training in Wisconsin public secondary schools, a questionnaire was sent to all public school districts. A total of 353 out of 382, or 92% of the districts operating high schools responded.

The questions dealt with the status of health occupational training in each school district as follows:

1. The school offers no health occupational information, guidance or training.
2. Guidance or other departments provide information on careers in health occupations on an individual basis as needed.
3. Health occupational information is provided as a unit in a course which may or may not be related to health occupations.
4. A health occupations survey course is provided.
5. Opportunities for gaining health occupational work experience are provided.
6. A capstone health occupations course is offered.

In addition, each school was asked if they were interested in starting a health occupations course or upgrading existing courses. Of those schools answering the questionnaire, 171, or 48% indicated interests in either starting or upgrading health occupations courses.

Table 1 shows the present level of health occupations information and/or training currently available in those secondary schools responding to the questionnaire.

	<u># of schools</u>	<u>% of schools</u>
1. No O.H. career info or training available	5	1.4%
2. H.O. information given on individual basis	100	28.3%
3. A unit on H.O. included in another course	44	12.5%
4. A H.O. survey course is provided	21	6.0%
5. H.O. work experience is provided	135	38.2%
6. A H.O. capstone course is available	48	13.6%
Totals	353	100.0%

Table 1

Levels of Health Occupations Career Information and Skill Training Available
in Wisconsin Public Secondary Schools

In the cases of those schools which indicated an interest in either starting or upgrading existing courses in health occupations, an attempt was made to determine the present level at which career information and skill training was currently being offered as shown in Table 2.

	<u># of schools</u>	<u>% of schools</u>
1. No O.H. career information or training available	4	2.3%
2. H.O. information provided on an individual basis	55	32.2%
3. A unit on H.O. included in another course	18	10.5%
4. A H.O. survey course is provided	10	5.8%
5. H.O. work experience is provided	73	42.8%
6. A H.O. capstone course is available	<u>11</u>	<u>6.4%</u>
Totals	171	100.0%

Table 2

Present Levels of Health Occupations Information and Training Available in Wisconsin Public Secondary Schools Which Have Indicated Interest in Starting or Upgrading Existing Health Occupations Programs

It should be noted that in tables 1 and 2, the response of each school is tabulated at the highest level of availability of information and/or skill training provided by the school with the questions listed in hierarchical order.

In the cases of those schools offering a unit on Health Occupations Career Information as part of another course, an attempt was made to determine the type of courses in which this was included. Table 3 indicates the responses received.

Health Occupations or Careers	37
Career or Occupational Information	32
Personal Health and Safety	28
Home Economics and Child Care	22
Social Studies	16
English or Communications	7
Biology or other Science	6
Guidance or Orientation	5
Economics	2
Physiology	<u>1</u>
	156

Table 3

Courses Containing Units on Health Occupations Career Information in Wisconsin Secondary Schools

The schools were also asked if they provided courses designed as a survey of health occupations, and in which department the course was offered. The following indicates the responses received:

Health Occupations Sequence	40
Home Economics	11
Guidance	8
Biology or other Science	8
Personal Health or Physical Education	6
Social Studies	5
Career Education	4
Course not named	4
English	3
School Nurse	1
Local Hospital by Hospital Personnel	1
Total	91

Table 4

Areas in Which Health Occupations Survey Courses Are Offered in Wisconsin
Secondary Schools

It should be noted that, at the present time, most health occupations programs in Wisconsin secondary schools are under the supervision of the Home Economics Department since this organization exists at the State level.

An important part of occupational training is work experience either through on-the-job experiences or a laboratory simulation of working experiences. It appears that many schools recognize this and are allowing students to gain this work experience as part of their school program either for class credit or without credit as indicated by the following:

For schools granting credit, students supervised by:

Health Occupations or Career Coordinator	20
Counselor	19
LVEC	12
Home Economics Teacher	8
Work Study Coordinator	7
Principal	6
Biology or other Science Teacher	2
Local Hospital Personnel	1
School Health Teacher	1
School Nurse	1
Business Education Teacher	1
Supervision not indicated	19

Total schools granting credit of H.O. work exp.

97

(continuation of Table 5)

For school not granting credit, students supervised by:

Counselor	9
Local Hospital Personnel	9
Principal	6
LVEC	2
Special Education Teacher	2
Science Teacher	1
Work-Study Coordinator	1
Librarian	1
School Nurse	1
English	1
Supervision not indicated	37

Total schools not granting credit	70
-----------------------------------	----

Schools which did not indicate whether credit was granted for H.O. work experience, and supervision was not indicated	7
---	---

Total schools offering health occupations work experience programs	174
--	-----

Table 5

Wisconsin Secondary Schools Offering Work-Experience Programs in Health Occupations and the supervision Provided for Students Enrolled in These Programs

A total of 49 schools reported offering capstone courses in Health Occupations. From the information provided on the survey, it is not possible to tell whether these are skill training level courses, or survey or other type courses. The course titles reported are as follows:

Health Careers	22
Health Occupations	19
Institutional Support Services	3
Health Services	2
Nursing Assistant	1
VTAE Nursing Assistant	1
No Name	1
Total Health-Occupations Courses	49

Table 6

Health Occupations Capstone Courses Offered in Wisconsin Secondary Schools

From the responses on the questionnaires, it is indicated that several of the capstone courses listed in Table 6 are offered jointly by several school districts. It appears, however, that the persons responding to the questionnaire may, in some cases, be confused as to what constitutes a capstone course since Department of Public Instruction records indicate fewer capstones than the survey shows, even considering the courses offered jointly. Further investigation is needed to establish the real status of the courses listed.

CENTER FOR STUDIES IN VOCATIONAL AND TECHNICAL
EDUCATION, UNIVERSITY OF WISCONSIN-MADISON

The Center for Studies in Vocational and Technical Education at the University of Wisconsin-Madison was reorganized with the support of the Wisconsin Board of Vocational, Technical and Adult Education within the School of Education in 1971. The function of the Center is to serve the State of Wisconsin in a unique way by bringing the resources of the University to bear on identified problems in the delivery of vocational and manpower programs--vocational education, technical education, adult education, career education, manpower training--to citizens of all ages in all communities of the State. The Center focuses upon the delivery of services including analyses of need, target groups served, institutional organization, instructional and curriculum methodology and content, labor market needs, manpower policy, and other appropriate factors. To the extent that these goals are enhanced and the foci of problems widened to encompass regional and national concerns, the Center engages in studies beyond the boundaries of the State.

Merle Strong, Director
Roger Lambert, Associate Director

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